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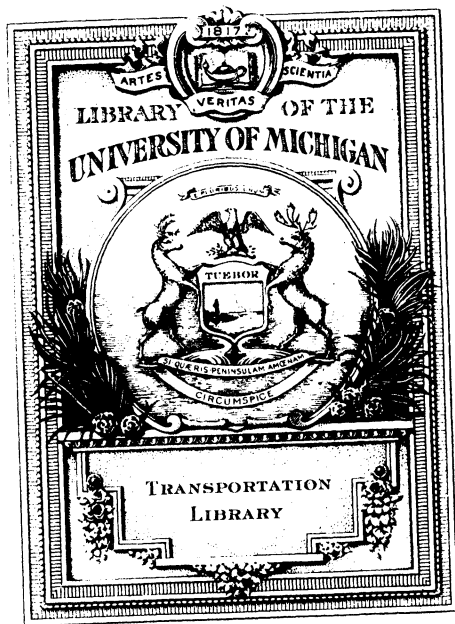
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ROAD LEGISLATION

AND

MANAGEMENT.

BY RICHARD BAYLDON.



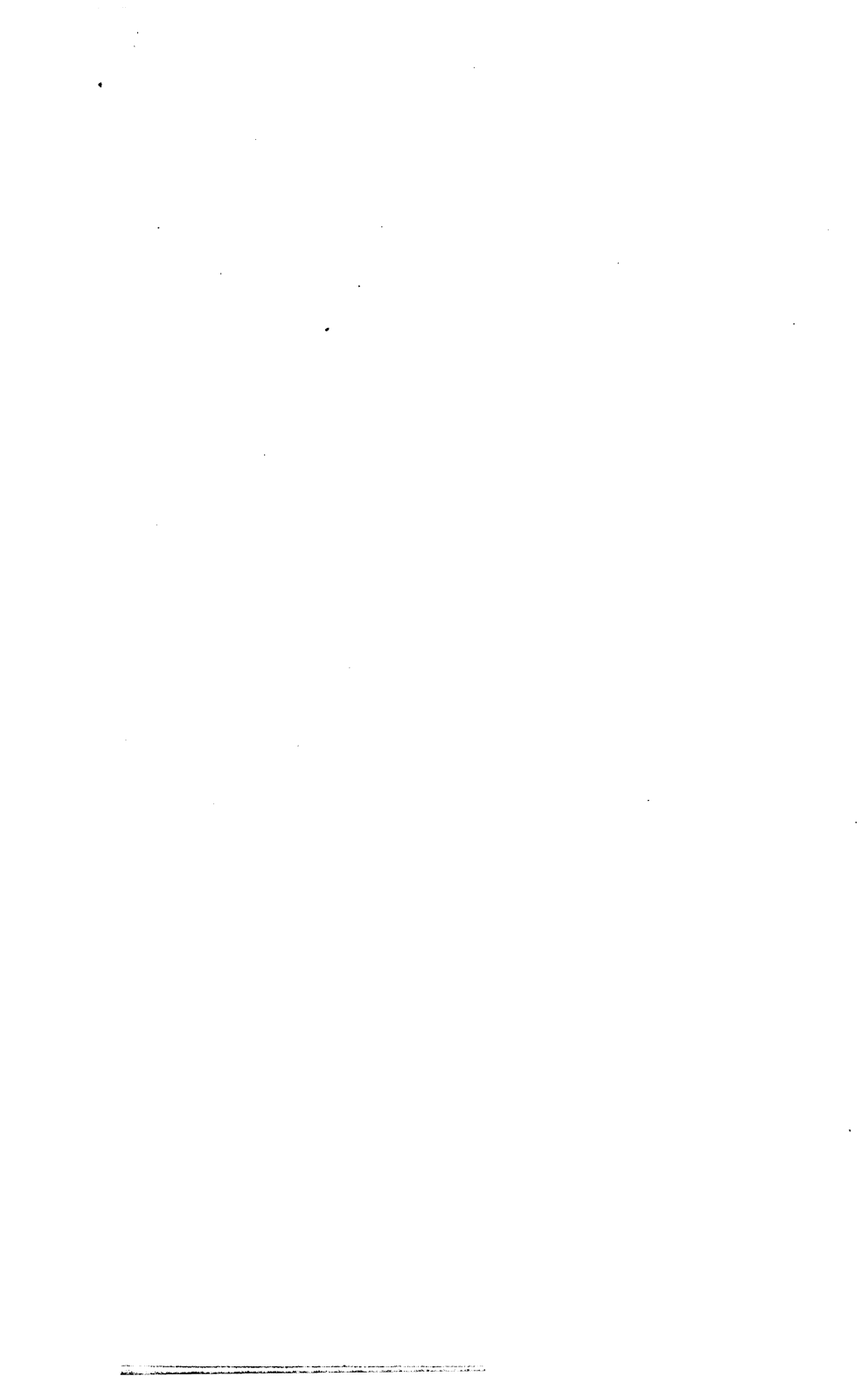
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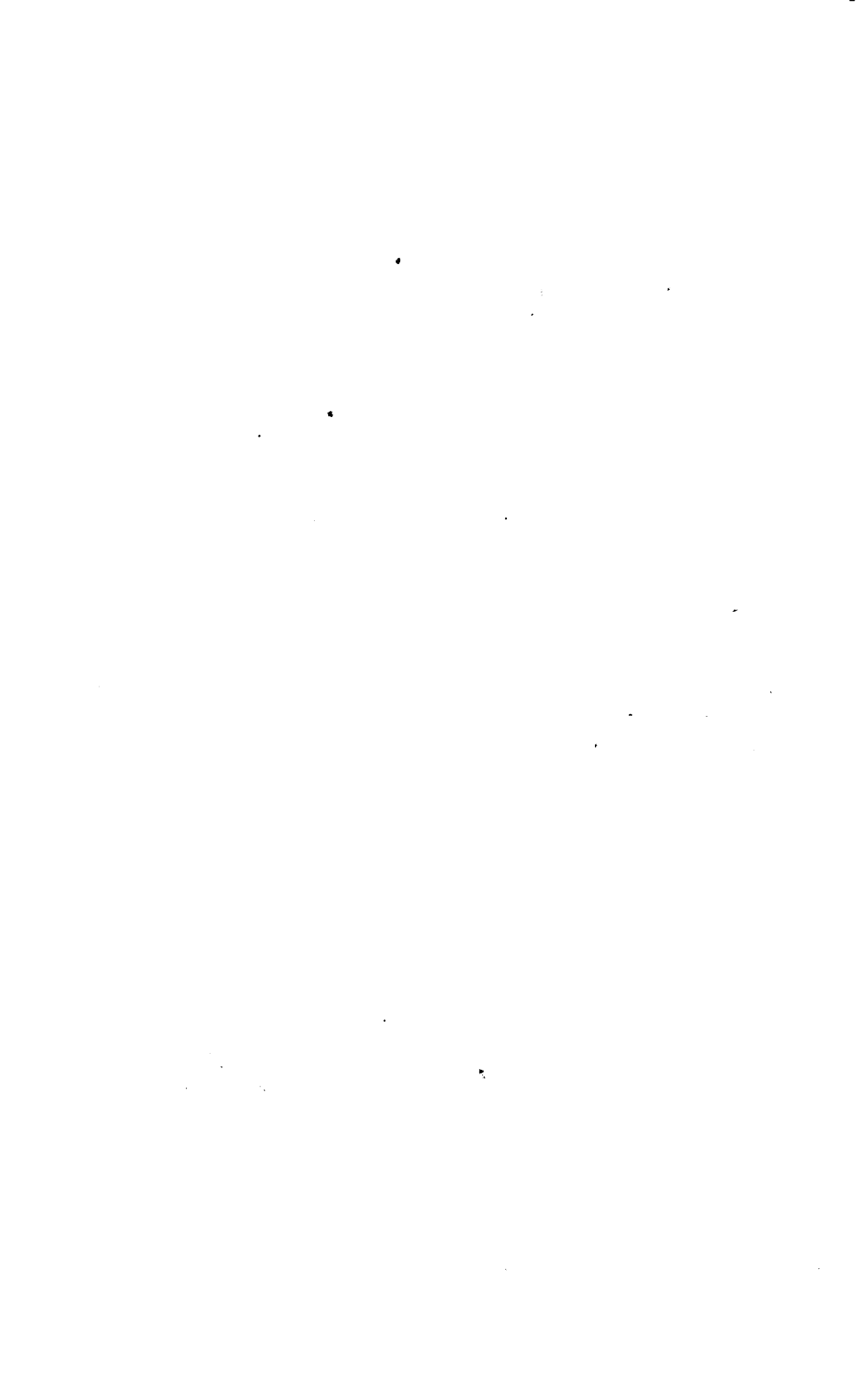
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ROAD LEGISLATION AND MANAGEMENT.



A TREATISE
ON
ROAD LEGISLATION
AND
MANAGEMENT:

IN WHICH,

SUGGESTIONS ARE GIVEN FOR THE PAYMENT OF TURNPIKE-
TRUSTS DEBTS; AND ALSO

TWELVE MODEL CLAUSES, CERTIFIED BY W. TIDD PRATT, ESQ.,
AND PROPOSED FOR ADOPTION IN ALL NEW TURNPIKE-ROAD
ACTS; TOGETHER WITH

REASONS FOR REMOVING TOLL BARS FROM CERTAIN LOCALITIES,
AND LIKEWISE ENCOURAGING AND ENFORCING FLAT BROAD
WHEELS FOR HEAVY CARRIAGES.

TO WHICH IS ADDED,

A FEW PRACTICAL REMARKS ON THE MANAGEMENT
OF TOLLS, AND REPAIRING TURNPIKE-ROADS
AND HIGHWAYS.

BY RICHARD BAYLDON,

ROAD-SURVEYOR.

*To John Tidd Pratt Esq.
with the authors compliments
30th March 1857.*

LONDON:

LONGMAN, GREEN, BROWN, LONGMANS, AND ROBERTS.

1857.



"If a thing is right to be done, it must be right that somebody should do it."

"Nothing but the right can ever be the expedient, since that can never be true expediency which would sacrifice a greater good to a less."

"Among the many fallacies of the day that pass unquestioned, there is none more general nor more fallacious than that Innovation is popular; the truth is, that a judicious innovator is likely to be, at least for a time, the most unpopular man in the universe: he will be hated by those who are satisfied with old evils; he will be disliked by the timid and the lazy, who dread the peril and the trouble of change; and he will receive little favour from those most conscious of the evil, because his remedies will not act as a charm, and remove in an instant the accumulated ills of centuries."

"It is a common phrase with the indiscriminating advocates of delay, that 'The World is not yet *ripe* for such and such a measure.' But they usually forget to inquire 'Is it *ripening*? When, and how, is it likely to *become ripe*?'"

"When the hills are completely cut away, and the chasm bridged over, and the swamps rendered firm, so that the steam-carriage glides smoothly along, the traveller is apt to think lightly of the obstacles that were to be overcome."

"Sound principles must not only be brought into notice, and clearly explained, but must be allowed some time to become familiar to men's minds, before they will be acted on."

"He that is not open to conviction, is not qualified for discussion."

"Begin reforming, therefore, *at once*: proceed in reforming, steadily and cautiously, and go on reforming for ever."

WHATLEY.

"It has sometimes been a subject of wonder to me, when reflecting upon the anxious solicitude of men for posthumous celebrity, that this single motive has not induced more vigorous attempts, on the part of a Minister, to regulate his measures by a stricter regard to the dictates of everlasting rectitude. I have wondered, because it is manifest from experience, that posterity will and does regard those dictates in its estimate of the honours of the dead. A few years serve to dissipate much of the false colouring which temporary interests and politics throw over a Minister's conduct. It is quickly discovered that he obtains the largest share of posthumous celebrity, who has most constantly adhered to virtue. I propose not the hope of this celebrity as a motive to the Christian: he has higher inducements; but I propose it to the man of ambition. The simple love of fame would be, if he were rational with respect to his own interest, a sufficient inducement to prefer that conduct which will for ever recommend itself to the approbation of mankind. When we shall see the statesman who has, in private and in public, but one standard of rectitude, and that one the standard which is proposed in the Gospel—the statesman who is convinced, and acts upon the conviction, that everything is wrong in the Minister which would be wrong in the man—we shall see a statesman whom probably the clamour of to-day will stigmatize as a fool or a traitor, but whom good men now, and all men hereafter, will regard as having attained almost to the pinnacle of virtue and honour, and whom God will receive with the sentence of '*Well done*.'"

DYMOND.

INTRODUCTION.

IN submitting this little treatise to the Public at large, the author has pleasure in thinking that he has condensed a large measure of practical experience on the subject to which it relates : he believes, therefore, that a sense of that duty which every one owes to society, and not any less worthy motive, has induced him to publish it. He has repeatedly acknowledged the debt he owes to those Commissioners of Turnpike-Roads, as also to many Noblemen and Gentlemen, by whose influence and support (for more than thirty years) he has continued in situations of great trust and responsibility, thus enabling him to reap a large harvest of practical knowledge in road-management : this knowledge, he humbly believes, could not fail to improve in other quarters, both the condition of the roads themselves, as well as their financial position and prospects, in the same proportion that they have done those under his own immediate care. In this hope he solicits a candid perusal from all parties.

METHLEY, WAKEFIELD, *March*, 1857.

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ON

Repudiating Turnpike-Trusts Debts.

THOUGH I have had, during the last thirty years, several important Turnpike-Roads placed under my care, and though I have perused the numerous public and private documents published within the last fifty years, connected with the management of Roads, yet my attention has been more especially drawn to the Reports presented to Parliament by the Secretary of State within the last seven years; and so strongly have I been impressed with the injurious tendency of those Reports as encouraging the modern system of repudiating Turnpike-Road Debts by lowering the interest of all those debts on trusts requiring a renewal of their Acts, that I feel it only a duty to lay these remarks before the Public at large, and would more especially draw the serious attention of those Members of Parliament who may have to sit on the Committees of all new Turnpike-Road Bills.

Besides carefully perusing all the Reports alluded to, I have taken every opportunity of laying their contents before several parties connected with turnpike-road management, all of whom unanimously condemn the present system of repudiating such debts; and after giving the subject my best attention, and looking at the various conflicting interests involved in the question at issue, I entirely agree with the views of the gentlemen who protest against the modern system of ridding the country of the debts on turnpike-trusts. Indeed, should these debts in future years be treated with that severe stringency which has been adopted towards nearly all Turnpike-Road Acts passed during the last seven years, there can be little doubt, that, within twenty or thirty

years, all the turnpike-road debts in the kingdom, although amounting still to near £5,700,000, will in many instances be discharged in a manner that I can scarcely find words to designate, so fully convinced am I of its dishonesty. The principle adopted is morally dishonest; England's great moralist has observed, "that it is surely very shallow policy that supposes money to be the chief good;" and if patronized for any length of time by our Legislature, there will be no telling where it will end; and probably, ere long, retributive justice may overtake the very parties who originated this scheme of spoliation; and they may be personally made to feel it in some way or other, which they little anticipated when they first gave a helping hand in promoting this new policy of repudiating turnpike-road debts. It is not discharging debts fairly, by paying the full amount of money which was originally borrowed on the confidence of the Commissioners of the Roads, and the faith of Acts of Parliament, and at a time when no precedent had ever been adopted of such a speedy and dishonourable method of ridding the country of their debts by repudiating them; only allowing 4, 3, or $2\frac{1}{2}$ per cent., and often less interest than even this amount, instead of the 5 per cent. originally fixed upon. What need of this haste,—and what harm has arisen from turnpike-roads, that their financial concerns are to be thrown into confusion as now practised by the repudiating principle,—are the questions asked by a humble Road-Surveyor?

It must, however, be admitted that considerable benefit has arisen by the Secretary of State making preliminary enquiries into the financial position of all Turnpike-Trusts for the use of the Committees appointed to examine the details, before a new Act can be obtained: and it is, moreover, a judicious measure to extinguish all accumulated arrears of interest, which, from the insolvency of many turnpike-trusts, could never otherwise be discharged. Whilst on other trusts the law-expenses and salaries have been so great, as compared with the revenue derived from tolls, as to leave little, and in some cases nothing, towards the expense of repairing the roads; consequently the mortgage-debt remains in its original state; whilst the interest of it is permitted to accumulate to such an extent, as to render it impossible to be

discharged, except by a clause for the purpose being introduced on the renewal of the Act itself.

And I am equally ready to admit that very many road-trusts have, for a series of years, been so grossly neglected or mismanaged, regardless of either law, justice, or reason, as to render it quite necessary that the misdeeds of the Commissioners should be fully exposed, and efficient remedies adopted, to prevent a repetition of them. The tolls on other trusts have been so little attended to, that the traffic using the road has been favoured at the expense of both the townships on the line and the mortgagees. Therefore, so far as these subjects may have been brought before the public by the Reports of the Secretary of State, good no doubt will sooner or later arise by the introduction of a better system of management.

But having carefully perused nearly every one of the Reports issued within the last seven years, and many of them over and over again, I must nevertheless confess, that, whilst there is evidently one continued idea uppermost in the minds of the persons who have drawn up those documents, viz., an anxious desire to get rid of these debts as rapidly as possible, on the principle before reprehended, yet although each Report, as it issued, has been read with an eagerness which even lovers of new novels could never exceed, I must say, with all becoming respect, that I never perused so much matter relative to turnpike-roads, considering from what high authority these reports have emanated, which contained so little insight into the whole merits of the question, with the exception of the exposure of the mismanagement alluded to. It must therefore be admitted, judging from the evident eagerness to get rid of these debts in the very questionable mode of repudiating them, by reducing the interest to the extent alluded to, that due consideration has not been given to the just claims of the parties most affected by this modern system of legislation. Nor can I recollect finding in any one of those reports a single remark which proved that the persons making them were practically and fully acquainted with the subject, as I have never once observed a candid and proper acknowledgment of the benefits

which this country has derived from these turnpike-roads in times past; nor the present necessity for them; nor how the improvements on the different roads have gradually arisen by persons lending money for making them, and the duty of the public paying, in return for benefits conferred, a sufficient rate of tolls to keep these roads in proper repair, as well as providing funds for the interest and the repayment in full, when practicable, of the money borrowed, as originally agreed to, and which ought not to be violated except under unavoidable circumstances.

Surely, from the fact of many of the turnpike-roads being either originally made, or greatly improved within the last forty years, a large portion of the present generation can well recollect the dangerous ascents and descents, and also the narrow and circuitous lines of old road most of the traffic had to pass over before these turnpike-roads were formed, and which was attended with far less safety, comfort, ease, and speed, as compared with the present means of road-communication; whilst the saving of draught has been in many cases so great, as to enable one horse to convey from place to place on these new lines of road, the same weight with far greater ease than two, and even three horses could draw on the old common highways; thus saving the purchasing and keeping of numerous horses required for conducting the former traffic by the old route, and fully justifying the Commissioners of these roads in charging the public an increased toll in return for the benefit conferred; and which, with all due respect to those who hold an opinion to the contrary, ought still to be continued at such a rate of interest and for so long a period, as may be found necessary to pay all the debts honestly off in full; even if the period extended to thirty years longer, where it can be shown that there is traffic left on the road to effect these objects, as well as obtaining rates for the purpose from the different townships through which they pass.

By continuing the present system of repudiation, it would appear that a new generation has arisen, who either wilfully forget, or do not regard the obligations which their forefathers have laid them under in connection with the payment of these debts.

Although the circumstances of some of the bond-holders are such as not to feel the injurious effects of the new system of reducing the Interest on these debts from five to four, three, and in some cases, even less than two-and-a-half per cent., nevertheless I know that a large amount of the debts on many Trusts are composed of small sums of £200, £100, and less amounts, most of which were originally lent by clergymen, small farmers, tradesmen, and others in more humble life, and the interest is frequently drawn by their executors for the maintenance of a widow and fatherless children; and thus it often happens, by repudiating these debts in the way of reducing their interest, a degree of straitness, uneasiness, and even distress and misery, is very improperly entailed upon individuals whose circumstances demand our best sympathy and consideration.

But some parties say it is our Legislature who commit this act of injustice, and therefore we ought to submit; but they do not think for themselves, nor do they see the great dishonesty of it. Not being awed by an undue reverence of authority so unjustly exercised, I can no longer stay my pen from giving free utterance to the convictions of my mind in connection with this subject. I am glad, moreover, to record the fact, that this system of spoliation is highly deprecated by all the Clerks, as well as all the Commissioners of every Turnpike-Trust I have had the honour of being connected with, and they are not a few: I have taken every favourable opportunity of reminding these and other respectable persons as to the new system of dealing with all turnpike-debts on Trusts requiring the renewal of their Acts, and every gentleman that I have conversed with fully on the subject, without a single exception, deprecates the present system; all of them deeming it little short of robbery, and reflecting little credit to those members of Parliament who sanctioned it, or the country who witnesses so quietly such a system of spoliation without making efforts to put a stop to it.

I am not at issue with our Legislature, or any other party, as to the necessity of getting rid of these turnpike-debts; the only difference that really does exist between us being as to the manner

and length of time to be allowed for accomplishing so important an object. I will yield to none in my desire to see these debts gradually paid off,—and as quickly as the traffic passing over the roads, and the financial position of the different trusts, will justify. The best proof of my sincerity in this respect has been the gradual and rapid liquidation of these debts on all the turnpike-roads placed under my care within the last thirty years, as contrasted with their financial position before I surveyed them; nearly £40,000 having been paid off within the period alluded to.

But the plan which I have followed in assisting to liquidate these debts, has always been to place the burden of discharging them, as well as all the expenses of repairing the roads, as much as practicable on parties who have derived the greatest advantage of their application, by endeavouring to fix the scale of tolls, and the number of tolls to be collected, in such a manner, as shall fairly tax the traffic according to the distance travelled, and the damage done by each kind of vehicle passing over the road, and providing ample funds for the purposes; (and if possible without the assistance of highway-rates,) which no doubt were originally intended when the money was borrowed, improvements made, and toll-gates were in the first instance erected: and not allowing arrears of interest to arise, or the mortgage-debt to be so little reduced, by neglecting to place sufficient tolls on the traffic to discharge these demands as they annually occur; and thus to hazard the unliquidated debts to be dealt with by Parliament in a new fashion, arising from the previous wants of the finances of these roads not having been sufficiently attended to, or the tolls placed at a sufficiently high rate to liquidate the claims against the trust whilst the act was in full operation; and should some of the commissioners be personal sufferers, they have no right to complain if they are made to feel the effects of their own mismanagement and supineness.

Surely the exposure of this neglect of some gentlemen, who from being often mortgagees of the tolls as well as active commissioners are doubly to blame, will induce parties having the management of other roads, (whose Acts have yet several years to run before they expire,) to take warning, and at once use more stringent

measures, and not carelessly leave the finances of their trusts to chance, or rather to be dealt with by Parliament in the unjust manner referred to, but which I do sincerely believe, if strictly examined into, will not be allowed to continue much longer.

Indeed, one of the gentlemen (Edwin Eddison, Esq., Leeds), on being asked to revise my twelve model clauses for Turnpike-Road Acts, could not let the opportunity pass away without drawing my serious attention to the present dishonourable method adopted by the Legislature in connection with turnpike-road debts; and not being able conscientiously to resist his appeal to me on this subject, I ventured in reply to him, by a letter of the 4th April, 1856, wherein I observe that,—

“After spending a considerable time lately in looking carefully over numerous parliamentary documents, as well as all the 300 Local Acts of Parliament for turnpike-roads passed during the last seventeen years, and analyzing them, and reducing the various items into one table, I find that our Legislature ought to reduce the interest of the debt of the Barnsdale and Leeds turnpike-road to three per cent., instead of the five per cent. previously allowed, if they dealt with it in the same manner as they have done to other trusts in similar circumstances. Now, sir, although Parliament does act thus, and therefore it may be deemed sufficient authority for many other parties, who either have not given the subject due consideration as to its unhappy results, or whose consciences are not very scrupulous about the matter, resting quite contented in following the example of such a high tribunal as our English House of Commons; yet, with all becoming deference to that august body, as well as to all others, and regardless of future danger or present advantages, I do say, that I cannot pay any respect to any authority whatever, when, after the most mature consideration, I clearly perceive its decisions are unjust. A reformer, in my humble way, in all road-management and legislation, when I find them defective and requiring amendment, and paying little regard to bad customs, no matter how long established, or however universally sanctioned, I therefore, sir, bearing in mind your appeal to me on the subject of repudi-

ating turnpike-debts contained in your last letter, do now confess, after seriously ruminating long, and looking on both sides of the question fully, and with that impartiality which I would wish always to exercise to the best of my judgment in all matters demanding my serious attention, as well as feeling the influence of my position, and the responsibility of the situation which yourself and numerous other parties have placed me in, (making use of the words in a letter sent to me very recently "by paying great deference to my judgment and integrity in the management of roads and their finances,") do now say with yourself, that it is dangerous ground to tread on, and would be inconsistent with my general character if I were to argue for a repudiation of turnpike-road debts, by what is called a reduction of the interest, as now generally sanctioned by Parliament in all new Turnpike-Road Acts.

"With all becoming respect, I would venture to observe, that where the repayment of the debt of a Trust, we will say within thirty years, at the old rate of interest, besides keeping the road in repair, out of funds raised from tolls, as well as receiving assistance from the townships on the line of road, is quite hopeless, then Parliament acts wisely in reducing the interest greatly, say one, two, and even three per cent. in some cases; but I find they are reducing the interest one or two per cent. in some new Acts, when the interest has been regularly paid for a series of years, and the debt itself also gradually though perhaps slowly diminishing; whilst at the same time these charges as well as repairs have been paid out of the tolls raised from traffic using the road, without calling upon the townships on the line for any contribution whatever. In such cases as these, the mortgagees, in my humble opinion, have just grounds of complaint, and I sympathise with them."

Having now, as I trust, laid before my readers facts and statements fully proving the great injustice that has arisen to many of the mortgagees of those turnpike-trusts whose finances have been subjected to parliamentary interference within the last eight years, I will now proceed to take another view of the subject, in order to show, that, on the lines of many turnpike-trusts where the repairs of the roads, for want of funds, are obliged to be thrown,

either partially or entirely, on the respective townships through which they pass, the ratepayers of these townships in many instances, when all the circumstances connected with the funds of the trusts and the rates raised within their townships are fully considered, have really no just ground of complaint; as the following facts, well known to me, will fully illustrate.

The financial position, traffic, and the demand for improvements were such on one important line of turnpike-road placed under my care several years ago, as to justify an expenditure of upwards of £15,000 being laid out in improvements and diversions of the road, extending into the very centre of two large towns connected with the trust, and which were scarcely finished before a new railway was opened, which took off nearly all the light profitable traffic to such an extent as to reduce the income of the tolls to about one-third of its previous rental; whilst the demands arising from the interest of the debt, balance due to the treasurer, and other expenses, required the whole of the tolls for several years, leaving little towards the expense of repairing the road, which, as a consequence, was placed under the care of the different townships through which it passes. In the first instance, nearly all the townships refused to repair the portions of road belonging to them, although they were informed that the finances of the trust were so greatly reduced, as to leave the commissioners no alternative than to abandon the repairs. I well recollect reminding the Surveyors of the Townships of their legal liability, but nevertheless I candidly told them, that, all circumstances being considered, they had really no just grounds of complaint, by having to take the repairs under hand; intimating also, that the townships on the greater portion of the road had the benefit of the rates contributed by the very same railway which had taken the traffic from off the road, and that the large amount of highway, poor, and other rates paid by that railway to those townships, were so much greater than the rates received from the land when used for agricultural purposes, and over which the railway now passed, being about one pound sterling for every sixpence paid in rates previously, as greatly to overbalance any additional increase to their highway-rates, arising from having to repair the turnpike-

road alluded to. But this kind of reasoning appeared to have little weight with the agriculturists, who at last could only be induced to take the road under their management, by the trustees offering as an inducement to allow a fixed sum of money towards the repairs, on condition that the townships should themselves find and expend the remainder necessary to keep the road in repair. This system being continued for a number of years, has at length placed the trustees in a position to keep the road in repair entirely out of the tolls, and thus, happily for the public passing over it, and the townships also, relieving the latter parties from any further contribution.

Upon the whole, the Trust just referred to, and which is a fair representation of many others, has, during the last forty years, been so well attended to, as to afford little ground of complaint when closely examined. The great principle of taxing the parties who used the road, so as to compel them to pay for the expense of repairs, interest of debt, and gradual reduction of the debt itself, having been fully carried out, the townships on the line had no just ground of complaint, even when at last, from circumstances beyond their control, the commissioners were, for a few years, obliged to throw up the repairs to the townships alluded to. For I trust it will be admitted, that when commissioners have powers in their Local Acts to charge the traffic passing over the roads a toll quite equal to the expense of repairs, and paying the interest, as well as gradually discharging the principal debt itself, and yet have not exercised this power fully, they have not discharged their duty properly either to the ratepayers of the townships, or to the bond-holders. Both these parties are made, sooner or later, to suffer from the neglect, although they are nearly quite helpless, and without redress; as the following facts, well known to me, will testify.

The trustees of a road with a large mortgage-debt on it were obliged to apply during the last session of Parliament for a renewal of their Act. The bond-holders have hitherto always received five per cent.; but Parliament, dealing with this trust in the same manner as they have done with others placed in similar

circumstances, have not allowed more than three and a quarter per cent. for interest in future. Of course, the smaller the debt of a trust, and the less injury is done to the mortgagees, when Parliament acts on their new method with those debts, by reducing the interest : but the greater the debt, the greater is the injury sustained by the helpless sufferers. I venture to say, and could prove it fully if necessary, that, had the finances of the trust last alluded to been properly attended to within the last twenty-five years, as other trusts have been in its immediate neighbourhood, that the debt at the present time need probably not have been more than £5,000, instead of the £15,542 now on it. The commissioners of the road never anticipating that the debt would be repudiated in the modern fashion, had always kept the charge for tolls far less than authorized by their Act ; not wishing to press too severely upon the traffic. The scale of tolls on that road has not been a good one in many respects ; whilst a great portion of the traffic has used the road for many miles in length without having to pay any tolls whatever ; and some of the toll-gates are so far distant from each other as to allow much traffic to pay a toll little more than one-half of the damage the road sustains from its wear ; leaving the remainder of the expense, viz., repairs, interest of debt, management, incidentals, and the repayment of the debt, unpaid at all, or left to the townships, whose legal liability renders them the scape-goat for such gross mismanagement, except on the arrears of interest being run on from year to year, until a renewal of the Act becomes necessary, when Parliament, acting upon the repudiating principle, exonerates the trustees fully ; only punishing the helpless mortgagees to an extent which, for only six sessions of Parliament, can best be perceived by the two tables, extracted from a parliamentary document on turnpike-trusts, issued from the office of the Secretary of State, dated January 30th, 1856. The abstract, stating the reduction of debt and interest on certain turnpike-trusts for which new local acts were obtained during the last six sessions ending 1855, or on trusts as arranged by the Secretary of State without obtaining new local acts, and the alterations made in the amount of principal debts, and the rate of interest payable upon two hundred and twenty trusts, is shown in the Tables, Appendix, Nos. VII and

VIII. Now these modern means of improved intercourse from place to place, by making new and amending old roads from money raised on the security of turnpike-tolls, could scarcely ever have arisen, had the public waited for funds produced by the parish-rates alone, for we know not of an instance of this kind ever taking place, except in the immediate vicinity of large corporate towns. For the very proposal of laying rates in the country-parishes to effect the great objects of making diversions of roads, and the lowering of hills, and raising the roads over the valleys between large towns, would have kept the parochial authorities and the ratepayers in one continual agitation, if not opposition, amounting to parochial board-riots. Had the unimproved roads remained until the parishes had consented to find the funds required for effecting these alterations, very few indeed of the turnpike-roads made within the last thirty or forty years would ever have been effected, and the public must consequently have had only the old narrow, circuitous, hilly, and frequently dangerous, highways to travel over.

Indeed, several of the lines of communication leading into the very centre of many of the large towns have been made within the last thirty years at a serious expense, by paying for buildings, land, and constructing the roads wholly out of funds raised on the mortgage of the tolls, the interest of which was to be paid out of tolls to be collected from the traffic passing over them. When the ample width and direct line of these new roads, together with the excellent houses, shops, mills, and other valuable property that have rapidly been erected along them, are contrasted with the narrow circuitous roads and streets previously in use, and the old dirty-looking buildings adjoining them now fast going to decay and becoming gradually deserted, but which, previous to the construction of the improved roads, were the only thoroughfares in existence ;—and when I bear in mind the manner by which the funds required for making these improvements were raised, and the repudiating system now adopted in discharging them,—I am led to hope that on these facts being calmly considered by the parties having the decision of this important business, that an end will speedily be put to the modern dishonour-

able system of repudiating turnpike-trust debts ; inasmuch as the estates of the nobility, gentry, small freeholders, as well as occupiers of land in the country-districts, and the shops and buildings along the streets of the new towns (springing up solely from the making of these improved roads), have had their properties so greatly improved, as to entitle the mortgagees of these roads to be paid honestly off in full whenever practicable.

The dishonourable system of repudiating Turnpike-Trust debts works injuriously as regards many local Acts for turnpike-roads as follows :—Nine-tenths of all these acts have been obtained for a period of twenty-one years, and although a large number of them have run out, it being upwards of thirty years since they were originally procured, yet the Commissioners allow their trusts to be carried on from year to year by the Continuation Act annually passed by Parliament for the purpose, rather than apply for a renewal of their Local Acts, with a certainty that the debts will be repudiated by the modern system now adopted.

The new railways which have been opened within the last sixteen years have so altered the finances of many roads, whilst certain parts of those roads have had such an accession of traffic brought upon them as to have caused a number of houses almost approaching to a town to rise up, that the trade has in some instances increased so much, as to render it necessary to apply to Parliament for a renewal of many turnpike-trusts with a view of obtaining further powers for making additional improvements, as well as taking down buildings in order to make the roads more safe and convenient for the new kind of traffic brought upon them. The necessity of making these improvements may be easily conceived, when, on some turnpike-roads, the new railways have intersected them, and stations have been erected in several places requiring accommodation for the traffic to come along those roads which did not pass over them previously to the introduction of railways.

Experience has also proved that there are several clauses in all old turnpike-acts as regards tolls and exemptions, that require

amendment, but which cannot be effected except on a renewal of the acts. The debts of these trusts, although greatly reduced, are not entirely paid off, but in every case I find it hopeless to recommend the trustees of these roads to apply for amended acts; for however great may be the inconvenience suffered by the public, and the unjust arrangement that many parties are now subject to, so long as the old acts are in operation, the trustees of these roads, knowing with certainty that the rate of interest of the debt will be diminished on obtaining all new acts, quietly suffer the public to endure all manner of inconveniences rather than voluntarily apply to Parliament with an assurance of the turnpike-trust debts under their care being repudiated by the modern system of legislation. Let it, however, be ascertained, that, in future, Parliament will not, except under peculiar and unavoidable circumstances, allow of any reduction of the lawful rate of interest of the debt, there would then be little doubt that many hundreds of turnpike-trusts, whose acts have long since run out, would speedily apply for new acts and improved clauses that would meet the necessity of those trusts, and the convenience of the public, far more than can ever be expected to arise so long as the present imperfect old acts are continued. Indeed, the trustees of these roads are the natural guardians of the mortgagees of the tolls; and I am happy to find, generally speaking, they honourably discharge this portion of their duty by not sanctioning, either directly or indirectly, the attempts of our Legislature to repudiate debts which were originally contracted by trustees of these roads to be paid off in full.

After much reflection, I have come to this conclusion, and for the sake of illustration would observe, that if I had my choice, and were held personally liable for the expense of repairing all the roads in the kingdom, both turnpike and highways, during the next twenty years, as well as having to pay off within that time the interest and debts of near £5,700,000 now due to the mortgagees of the turnpike-trusts, out of the tolls and highway-rates annually raised for the use of these roads, without increasing the present amount at all, I would prefer being bound to pay off those demands in full within the period alluded to, were

my twelve model clauses, hereafter alluded to, universally adopted, rather than be compelled only to repair those roads, both turn-pike and highway, during the period of twenty years, whilst the present destructive traffic were allowed to travel over them, even if it were held out as an inducement to continue the present system, that I had not to provide funds for the payment of either interest, or for the liquidation of the mortgage-debts of the turn-pike trusts, these demands being otherwise discharged.

In fact, were the twelve Model Clauses hereafter stated brought into full operation, both the payment of interest, and also the debt in full, within twenty years, excepting in some rare cases, would be readily accomplished by a surplus fund, arising from the expenditure of Repairs being so much less when the properly-shaped broad wheels came into operation, as compared with the great wear and tear of the present heavily-loaded narrow, and improperly-shaped broad ones now in general use. This would surely be a far better and more honest plan of discharging Turn-pike-Trust Debts than the present careless system of raising tolls, without placing scarcely any check whatever on the destructive traffic passing over the roads, funds being wasted in the expense of repairs which ought never to have arisen, while at the same time far too little toll is frequently collected from some traffic, considering the weights carried and distances passed over the road; the consequence being, that the legal demands of these trusts for debts, and repairs, are not met as they arise; the Townships, as a natural consequence, are burdened with the repairs, owing to parties using the roads (frequently from the gross neglect of the Commissioners) not being called upon to pay even for the damage alone arising from the wear of the traffic. The debts themselves are often reduced but slowly, and in many cases not at all; the interest, also, only partially paid, or if paid in full, it takes the whole of the funds, leaving all the other matters in arrear. When I am aware of these facts, and bear in mind the powers of many of the present local acts to raise from the traffic ample funds to meet nearly all the demands in full, I am struck with the evils of such gratuitous and irresponsible services as are frequently rendered by the commissioners of many turnpike-

roads, and which is made still worse by the modern system of legislation.

This deficient management and accumulated arrears are at last very summarily disposed of on the renewal of the Acts ; all arrears of interest being extinguished, whilst the debts themselves are attempted to be paid off by *repudiating*, viz. lowering the future interest to four, three, and two-and-a-half per cent. ; nay, on many roads even less than these amounts are forced upon the acceptance of all Mortgagees, instead of paying the debt in full, which could in most cases be effected, were the system now recommended generally adopted.

Indeed, the improved condition of the roads, and the increased ease and comfort to travellers using them, that would be certain to arise on the adoption of the properly-shaped broad wheels, as compared with their condition so long as the present destructive traffic is permitted to continue, saying nothing of the benefits of a reduced expenditure in repairs, and honestly paying off the Debts, would be such as alone to justify an alteration being made in the present system with the least possible delay.

The great point of charging narrow wheels double the toll of properly-shaped four-and-a-half-inch flat wheels, and all broad wheels when not running flat, the same toll as narrow wheels, has been fully carried out on the Leeds and Wakefield Trust during the last fifteen years ; whilst, for the three years previous to its adoption, the repairs took the whole of the tolls raised from the traffic, leaving nothing for the payment of Interest or repayment of the Debt of £15,000. The Road was, moreover, always in a very indifferent state of repair, arising from the destructive effect of heavy traffic on narrow wheels. But ever since the new Scale of Tolls, encouraging flat broad wheels, has come into operation, the road has been preserved in the most perfect order, many parts running six, seven, and even ten years without renewal ; requiring only about one-third of the Tolls to keep it in repair, whilst the remainder of the funds has been expended in paying the Interest and the Debt of £15,000 ; this being now entirely ex-

tinguished, the public in future will either be allowed to pass along that road at a greatly reduced rate of toll, or the Trustees can expend the surplus in improvements.

Surely the knowledge of these facts will fully justify me in seizing every opportunity of laying them before the public, in order that the system which has produced such happy results may be fully explained and followed out on other Turnpike-Trusts, where, from the general state of repairs of the roads themselves, as well as their financial position and prospects, an alteration of their present defective management becomes essentially necessary.

Having shown the present defective system of dealing with Turnpike-Trust Debts, I will now venture to lay before my readers,—

1st.—Dr. Adam Smith's views of Turnpike-Road legislation.

2nd.—My own principles of Road-management.

3rd.—A summary of twelve Clauses which I recommend to be adopted in addition to those generally inserted in all Local Turnpike-Road Acts.

I.—Dr. Smith states,—“The true principle of all public imposts is, that those who derive the greatest advantage from their application shall bear the greatest share of the burden, and this unquestionably with regard both to the period of time and to the money. If this axiom shall be duly carried into effect, it will cause,—

“ 1st —Turnpike-Gates to be placed where they will collect most Tolls.

“ 2ndly.—That they be so multiplied as equitably to divide the burden of the Tolls necessary to be collected.

“ 3rdly.—It will enforce the making Tables of Tolls fully adequate to the making and maintaining the Roads, and paying off the Debt and Interest in a prescribed term ; and it also points out the necessity,—

“ 4thly.—Of enacting such provisions as may effectually tend to preserve the Roads from the destructive wear of heavy carriages.

“ 5thly.—It will take away all exemptions from Toll, granted on unreasonable claims of private or local interests, or with a view to procure support, or to bribe a threatened opposition to acquiescence.

“The folly of past times in mortgaging Tolls for Debts not to be redeemed is fully experienced, as is also the injustice of travelling at the expense of posterity; the remedy being, that of making fair and equitable loans, redeemable at certain periods.”

II.—A Summary of my principles of Road-management is,—

1st.—By adopting a Scale of Tolls relative to the shape of the wheels, so as gradually to introduce flat wheels of four-and-a-half-inch tire and upwards, in place of the narrow and improperly-shaped broad ones, hitherto used for conveying heavy goods.

2ndly.—By either retaining the collection of the Tolls in the hands of the Commissioners, or otherwise adopting such a check as to secure a greater amount of funds from the Lessees of the Tolls than were obtained from those parties when the traffic on the Roads was even greater than at present.

3rdly.—By economizing the day and contract work performed on the Roads, and yet allowing the workmen a remunerative price for their labour.

4thly.—By a system of applying the materials in repairing the Roads, so that the whole of it may be consolidated into one firm and solid mass, each stone remaining the same size as when broken and first applied on the road.

5thly.—By making arrangements as regards the equitable adjustment and gradual liquidation of the Debts, as well as the expense of repairing Turnpike-Roads extending into Boroughs and populous districts, so as to allow the immediate removal of all the Toll-Gates out of Streets and Roads near large towns; and obtaining powers to erect Weighing-Machines in their places, in order to preserve the roads and reduce the expense of repairing them by checking heavy weights on narrow wheels, as well as improperly-shaped broad ones; taking care to allow ample weights to properly-shaped flat wheels, and not interfering in the slightest degree with gigs, coaches, or any other traffic whatever passing along the roads. The future management of these roads to be placed under the care of the Town Councils or Boards of Health of the districts.

III.—Twelve Clauses proposed to be introduced in all Turnpike-Road Acts, in addition to those usually inserted; revised by Edwin Eddison, Esq., Solicitor, Leeds, and John Tidd Pratt, Esq., London; and are now respectfully presented to Parliamentary Agents, Clerks, Commissioners, and other parties interested in the management of Turnpike-Roads and Highways.

1.—(1st.) The Tolls for any cart, waggon, or such like carriage, with wheels of less breadth than four-and-a-half-inches, should be charged double the amount of those with wheels of four-and-a-half-inches wide or upwards, having perfectly flat tire and no projecting nails.

(2ndly.) Such broad wheels of four and-a-half inch tire or upwards as do

not run flat on the whole breadth of tire, or having projecting nails, to pay the same Toll, and have only the same weight allowed, as well as being liable to the same charge for overweight, as wheels *under* four and a half inches wide.

(3rdly.) Carts, waggons, or such like *erriages*, with flat broad wheels, drawn by *not more than one horse*, to be allowed 30 cwt. in winter, and 35 cwt. in summer, including the carriage and loading. Narrow wheels to be allowed 25 cwt. in winter, and 30 cwt. in summer. A charge of one penny per cwt. to be made for every cwt. above those weights.

2.—*Tolls on Asses when drawing, to be One-Third of the Tolls on Horses.*

3.—*Defining the terms "Summer" and "Winter."*

4.—*An additional Half-Toll to be paid for every fresh loading in certain cases.*

5.—*Tolls for Timber and other Carriages above ten feet wide between the Axles to be One-Half more than other Carriages.*

6.—*Manure, Agricultural Produce, and Road-Materials, not to be exempt except with flat wheels of four and a half inch tire or upwards.*

7.—*Carriages with wheels not having a flat surface, to be treated as Carriages with narrow wheels.*

8.—*Weights of Carts, or other Carriages, drawn by not more than one Horse, limited.*

9.—*Additional Tolls for Overweight.*

10.—*Tolls for Overweight on Carriages drawn by two or more Horses.*

11.—*Entrance to Fields to be made with hard Materials.*

12.—*In case Fence-walls are out of repair.*

I may observe that the proposed charges have been actually carried out on the Leeds and Wakefield Road during the last fourteen years; and has had the desired effect of gradually driving off nearly all the narrow, as well as the improperly-shaped broad wheels; bringing into operation the properly-shaped four-and-a-half-inch flat wheels; which are found to injure the materials of the road far less than those formerly in use. The proposed scale may be safely adopted on all the numerous Turnpike-Trusts round London, as well as on roads in manufacturing or other districts having heavy traffic on either narrow, or improperly-shaped broad wheels, if it were only to place a penalty on the destructive traffic, and to encourage the properly-shaped four-and-a-half-inch flat wheels; long experience having convinced me that it is only by placing a Double Toll on the destructive traffic, that the useful four-and-a-half-inch flat wheels can be brought into full operation.

Should this attempt to discharge a public duty be instrumental in carrying out the principles of Dr. Adam Smith, as also those suggestions which I have repeatedly endeavoured to throw out, in order that they may receive proper attention from those persons by whose influence and support they can alone be brought into general use, I shall feel amply rewarded for the toil and expense which I have for a series of years devoted to this subject; and could I have learnt that any other writer had referred to the injurious tendency of the modern careless system of Road Legislation, as well as the dishonourable plan of repudiating Turnpike-Trust Debts adopted during the last seven years, I should not have ventured to trouble the public with animadversions of my own; but, looking at the total silence of more competent authority, I could not conscientiously refrain from making an effort to introduce a wiser and more just system, founded on thirty years' practical experience and success,—never doubting that wherever it was adopted great improvements would at once arise in the condition of the roads, a consequent additional comfort to the persons travelling over them, and a reduction in the expenditure of repairs; thus renovating their financial position and prospects, as generally to supersede the modern dishonourable system of repudiating Turnpike-Trust Debts, which I trust is here proved to be as unnecessary as it is injurious and unjust. How far I may have succeeded in my humble efforts, I leave for others to determine.

RICHARD BAYLDON.

METHLEY, NEAR WAKEFIELD,
February 3rd, 1857.

APPENDIX.

No. I.

ON REMOVING TOLL-BARS OUT OF THE STREETS OF THE METROPOLIS AND OTHER LARGE TOWNS OR POPULOUS DISTRICTS.

ALTHOUGH it is from seventy to eighty years since Dr. Adam Smith first suggested his judicious principles of Road Legislation, (and it would have been well for the Public had they been adopted when originally proposed,) yet they may still be safely adhered to, except under the following circumstances :—

1st. It is not advisable to continue the collection of tolls when the debts of the roads on which toll-bars have been placed are discharged, and when the revenue received from tolls has been so much reduced by railways as to leave little more than what is required for paying the expenses of the toll-houses and the wages of the collectors. No good can arise from taxing the traveller merely for the purpose of paying for useless services, such as I fear is too often the case on many turnpike-trusts. This defective management demands a full investigation.

2ndly. The collection of tolls from traffic passing along the streets of towns or populous districts is an exceedingly objectionable method of raising revenue, either for the payment of the debts, or for the repairs of the roads ; being alike vexatious to the traveller and injurious to the commerce of the district in which such barriers are placed ; even when the amount of the toll exacted appears small, and not worth contending for, the annoyance of stopping to pay tolls on streets and roads subject to great traffic is even more irritating to the feelings of the passengers than the value of the money paid.

I have pleasure, however, in stating that the plan which I proposed upwards of two years ago for avoiding such evils, and which met with the entire approval of the Trustees of the Leeds and Wakefield Road, as also the rate-payers of the township of Hunslet, (see the Appendix No. IV.,) has been so severely tested, as completely to justify me in recommending that the removal of all toll-bars from streets and roads, placed in similar circumstances, should be adopted without delay, not only throughout the entire borough of Leeds, but also in the neighbourhood of all large towns, and more particularly the thirty-six toll-bars and eighty-one side-bars now standing on the one hundred and twenty miles of the Metropolis turnpike-trusts north of the Thames. The collection of tolls in the situations alluded to must ever be felt as an exceedingly obnoxious system of raising a revenue, and ought no longer to be tolerated, more particularly as the whole of the Mortgage debts have been discharged.

The toll-bars originally erected near London, and other large towns, should be removed further back into the more rural districts, as the popula-

tion of the outskirts of those towns increase ; for as new streets are opened, they serve as additional outlets for the traffic to evade the tolls, while in a large measure they increase the wear and tear of turnpike-roads. The numerous side-bars erected, with a view to prevent evasion, only add increased expenses for their maintenance, as well as in collectors' salaries ; the ingenuity of the toll-payers residing in those districts is moreover soon excited, for it is found that, after adding these annoyances to the public, as well as injuring the trade and property of the district, by erecting additional barriers to the freedom of commerce, many of the turnpike-roads are still used, and the tolls evaded, frequently by parties who contribute nothing towards the repairs ; it being found impossible to collect tolls from all the traffic passing over the roads, excepting side-bars are placed at every street-end of both sides of the Trust. This is the only method to be adopted if all parties must be made to pay toll for the use of the roads they pass over adjoining large towns. Surely this gross mismanagement should now give way to the more reasonable one of removing all the Toll-Bars out of the streets in or near large towns and populous districts, and raising the revenue required for the maintenance of the roads, and if necessary also for the payment of the debts, by rates collected from the inhabitants residing in the districts in which the toll-bars are situated. The present arbitrary divisions of the townships or parishes should be done away, and one uniform rate be collected over a wider area. For instance, if it be felt desirable to remove all the toll-bars out of a Borough, or a district over which an Improvement Act or a Local Board of Health extends, a rate from each township to repair the particular turnpike-road passing through their township only should not be imposed, for on the removal of Tolls it would often be unjust to do so, since much of the tolls previously paid was frequently by traffic coming from a distant township ; but were one uniform rate laid, those distant townships would probably be called upon to pay an amount of rates equal to the remission of tolls they previously paid.

Regarding more particularly the Commissioners of the Metropolis roads, I would take the liberty of stating, that, after carefully perusing all the documents presented to Parliament in connection with those Roads since they were Consolidated in 1826, including the last Report of the Select Committee, dated July, 1856, I feel convinced that, whilst it would be better that all those roads should still remain under the care of the present Commissioners, yet I would, with all due deference, recommend that all the present toll-bars should be abolished, and that the revenue required for the maintenance of the roads should be raised, not from each township or parish separately through which those roads pass, but from an equal rate extending over a wide area ; retaining powers to erect Weighing-Machines with the same scale of tolls for overweight on different kinds of wheels, as that given in the Appendix, No. IV. : not so much with a view of providing funds for repairs and management, since eventually a mere trifle, beyond the wages of the collectors, would be raised from the traffic ; but for the purpose of checking heavy weights on carts, waggons, or other vehicles, on narrow or improperly-shaped broad wheels, employed for conveying heavy goods. This arrangement would, doubtless, tend to preserve the roads from a vast amount of very destructive traffic now allowed to pass along the roads without the least check whatever, adding unnecessarily to the expenditure of repairs, as well as annoying the passengers in all lighter vehicles, who have far worse roads to travel over than they would experience if proper checks, such as is found to answer well on other Trusts, were adopted on all Macadamized roads near large towns, subject to heavy traffic.

Preventives are the best cure. It is surely much better to look at the real cause of the bad state of the roads, and the great expense arising from the rapid wear of the materials used in their repairs, and at once apply an efficient remedy, rather than permit the evil any longer to continue.

The scale of Tolls and Weights referred to has been found quite sufficient to check all destructive traffic, and gives the greatest freedom to the commerce of the district by allowing ample weights to the vehicles loaded with heavy goods, provided their owners will make the surface of that part of their wheels coming in contact with the road of a sufficient breadth, and running perfectly flat on the surface of the road.

Whilst I would take leave to suggest that a complete alteration be adopted as regards the mode of raising funds, as well as the abolition of all the toll-bars on the Metropolis roads, yet justice to the Commissioners and their officers requires that I should give a summary of the efficient services which they have rendered to the Public since those roads were placed under their care in 1827.

The present Earl of Lonsdale has been the Chairman during the whole of the last thirty years, and has been indefatigable in the discharge of the duties connected with his important office. The late Sir James Macadam was the Surveyor-General of the trust from 1827 up to the period of his decease in 1853, and was succeeded by his son Mr. James Macadam, who very soon afterwards died, when Mr. Henry Browse was elected Surveyor, and who, from having been employed under Sir James Macadam ever since the Trusts were consolidated, is well acquainted with all the localities and duties connected with the roads placed under his care: that these parties, along with Mr. J. L. Panter, the clerk of the Commissioners, have rendered great service to the Public, the following facts will testify:—

The debts belonging to the fourteen different Trusts extending over the one hundred and thirty miles of roads north of the Thames, at the time of their consolidation in 1826, amounted to £150,000. The rental of the tolls was about £75,000 per annum; the sum of £1,300 per year being paid as composition towards the repairs of the turnpike-roads passing through the different parishes; this payment has ceased since the new Highway Act of 1835 came into operation.

The tolls (as must ever be the case when roads are subdivided into different small Trusts and separate management) greatly varied in the rate charged for the same kind of traffic, when it passed through bars on different Trusts, even when the bars were placed only a short distance from each other. Each body of Commissioners naturally felt it their duty to look strictly after all the traffic passing over their roads, quite regardless of the just claims of the rival Trusts adjoining, or the convenience of the traffic passing over them. Since the roads have been consolidated, much of this annoyance, as well as that of paying double toll for passing short distances on different Trusts adjoining each other, has been removed; whilst the rate of tolls charged upon the different traffic has, generally speaking, been much reduced, and placed upon a greater equality than when collected under the separate Trusts.

There can also be no doubt that the Materials used in repairing the roads have been obtained more regularly, and bought at a far cheaper rate than previously: for the Surveyors of the fourteen different Trusts, under the old system, were unfortunately so many different rivals and competitors for purchasing the road-metal required for the repairs, and thus unnecessarily advanced the price; whereas at present only one party goes into the market to buy the whole of the materials required for the roads.

The experience which I have had during the last seventeen years whilst superintending the collection of the tolls, and surveying several of the most important of the twenty different turnpike-trusts in the neighbourhood of Leeds, fully justifies me in the view I take as to the economy, in many ways, that must ensue by the consolidation of Turnpike-Trusts under efficient management, particularly when the separate trusts have only had a short line of road under their care.

The Commissioners of the Metropolis roads, with the assistance of their officers, have discharged the whole debt of £150,000, which belonged to the different trusts previously to their consolidation, and have expended at least £60,000 in making Improvements and several important diversions, thereby greatly increasing the comfort, ease, and safety of the vast amount of traffic passing over them. The highest amount raised by Tolls since the bars were placed under the care of the present Commission was during the year 1837, when a rental of £83,497 was realized. The lowest amount of tolls collected during the same period will probably be during the present year, when not more than £58,000 is expected to be realized. The great reduction of tolls has arisen from the different railways leading into the Metropolis having taken off large streams of traffic which previously passed along the turnpike-roads.

The whole of the roads placed under the fourteen different Trusts previously to their consolidation had each their separate staff of officers, such as Clerks, Treasurers, and Surveyors; the salaries of which, together with other expenses of management, amounted to an aggregate of about £4,900 per annum; whereas the salaries of all the officers, together with the expenses of management under the present consolidation, amount to about £3,000 per annum, being less than two-thirds of the cost under the old system.

The Commissioners found the roads in bad condition, arising from defective management; local gravel, together with other inferior materials, had exclusively been used in the repairs, none of which were of sufficient hardness or durability to resist the heavy traffic passing into the Metropolis; and in Winter time, more particularly, great portions of road were always in bad order. Not more than one mile of road was repaired with granite; whilst at present more than fifty-three miles are entirely maintained with that excellent metal; and more than twelve miles of road are partially repaired with it; but the rest of the roads is maintained with the best material that can be obtained, regard being paid to the locality, and the present diminished amount of funds placed at the disposal of the Commissioners.

When inferior materials are used in repairing such roads as lead into the Metropolis, they are quickly pulverised by continual friction and pounding. These roads soon become either dusty or muddy, according to the weather. And although the best road-metals cost something more in the beginning, they cost less in the end, since their durability is so much greater than the softer material generally used prior to the consolidation of the Trusts near the Metropolis. Moreover, by stoning a road with the best materials, we not only reduce the expense of its maintenance, but also the annual amount of hindrances caused by the more frequent supply of rough stones, which tend so much to retard the progress of wheel-carriages, and also add to the labour of the horses drawing them. There is still room for further amendment, for what with the rapid wear of materials arising from the destructive kind of wheels now used in conveying heavy weights, and the want of due care in cleanliness, most of the principal Macadamized streets in the

Metropolis and other large towns, almost justify the description of being "streams of mud and filth" in winter, and "seas of dust" in summer.

Now if, after careful deliberation, I could be induced to hope, that the whole of the one hundred and twenty miles at present under consolidation, could be better attended to by the Metropolis Board of Works recently established, I would not hesitate to recommend that immediate measures be taken to transfer the roads to their care; but, on weighing the merits and inconveniences of both sides, and bearing in mind how well, generally speaking, the Commissioners have discharged their duties since the roads were placed under their management, I should rejoice to see all the Turnpike-Trusts of the Metropolis south of the Thames consolidated and placed under the present Commission, while I should regret to see the duties connected with the Metropolis turnpike-roads north of the Thames, transferred from an efficient and well-tryed body of noblemen and gentlemen to a body of gentlemen not having yet held office sufficiently long to prove their fitness to have the care of the Metropolitan roads, in addition to their present duties, placed entirely in their hands. Perhaps my thirty years' experience under the control of Commissioners of roads, as contrasted with that of Boards, where the members are constantly changing, may in some degree justify me in giving this recommendation.

Finally, in suggesting that the whole of the toll-bars now standing on the Metropolis roads should be abolished for the reasons just given, I would recommend that powers should be granted to the Commissioners to enable them to raise funds from all the parishes through which those roads pass, as well as to erect weighing-machines, with a scale of weights, as given in the Appendix, No. IV. From the severe test it has been subjected to, and successfully carried out for more than two years on one of the outlets of Leeds, where very heavy traffic is constantly passing, there can be no doubt of its great utility; and it may be safely applied on all other roads placed in similar circumstances.

No. II.

THE SHAPE OF CART AND WAGGON WHEELS—THE WEIGHTS ALLOWED THEM—AND SUGGESTIONS AS TO ALTERATIONS BEING MADE IN THE LAWS ON THESE SUBJECTS.

"Before anything is effected, we think it is impossible; but when it is done we are surprised, and ask why it was not done before."

It appears by the General Turnpike Act of 3 Geo. IV. cap. 126, sec. 7, that the trustees of all turnpike-roads are required to follow a certain scale of tolls, as follows:—

"All carts or waggons with wheels of less breadth than $4\frac{1}{2}$ inches are to pay one-half more toll than carts or waggons with wheels of six inches,—all carts or waggons with wheels of $4\frac{1}{2}$ inches and less than six inches to pay one-fourth more toll than wheels with six inches."

The main object of this scale is intended to equalize the tolls on broad and narrow wheels; and though it would be very desirable to make the difference of toll considerably greater, provided the broad wheels were made of a proper construction, yet as the wheels are now shaped, the difference is too

great: for, generally speaking, the carts or waggons with four and a half or six-inch wheels, as used in their present form, together with the extra weight they are allowed to carry, and from paying also less toll, are equally as objectionable to roads as narrow wheels; and so long as it remains a matter of choice with people either to adopt the present shape, or any other they think proper, this serious evil will continue. It is to this most important oversight in the General Turnpike Act, and to the improper shape of the felloes and tires of the greatest portion of the broad wheels at present in use, that I would more especially advert; as well as to the injurious effects arising to roads when excessive weights are placed on carts or waggons with narrow wheels, and drawn by no more than one horse.

“With regard to the shape of the felloe, it will be seen that the general practice has been to make a six-inch felloe, in a certain degree, circular, instead of flat, which of course has had the effect of injuring the roads, and of deluding the trustees of the turnpikes. Much of the dislike which has been felt by some Surveyors to the broad wheel has arisen from this cause, and with reason. The six-inch wheel is allowed to carry greater weights than the narrow wheel, and pays at the same time less toll. The circular form of the felloe prevents the whole six inches from bearing upon the road, and, in many instances, will be found to roll no greater surface than the three-inch wheel. If, then, it is allowed to carry more weight, and pay less toll, the objection of the Surveyor is very natural. Under these circumstances it has double the advantage of the narrow wheel as regards toll, whilst it does double injury to the materials composing the roads it passes over. Provision ought therefore to be made, that the whole professed width of felloe be made flat, so that it bear upon an equal superficies of road, whilst all broad wheels having only a nominal width and not running flat, shall be treated as narrow wheels.”

The above remarks as to the improper shape of the felloes of the greater part of the broad wheels now in use, were made some time ago by an intelligent road surveyor in the south of England. My observation of such wheels as are at present in use in the north of England, are as follows:—

The broad wheels of the carts and waggons belonging to the agriculturists are variously shaped, but the greater part are of these forms:—some of those of 6-inch broad have their felloes shod with two bands of iron tire, each band being three inches wide, and fastened on in such a manner that the whole weight of the carriage and its burden does not rest on more than one of the bands of each wheel (namely, that adjoining the body of the carriage), while the other or outer band, merely to give a nominal and not a real width (in order to enable it to pass at the reduced toll), is only ready to sustain its portion of the burden when, either from the pressure of an excessive load, or unevenness, or want of firmness in the road, it should be brought into contact. Other wheels have their tires so convex, that very little of their surface comes in contact with the hard part of the road; and let any person follow them whilst travelling on a road, whether turnpike or highway, and he will observe, that, instead of the load resting on the entire breadth of the tire, it presses on only one-third, and very seldom above one-half, of the breadth; it is very true, if there be one or two inches of puddle or dirt on the road, the wheel will leave such an impression upon it as would lead a careless observer to think that it pressed all equally alike; but let the same person carefully watch the impression of the same wheel on the same road after the dirt is taken off, and he will find that the present broad wheels, from having merely a nominal width, are a complete evasion, and equally as destructive to roads as any narrow wheels.

Other broad and narrow wheels have their iron tires or bands fastened on the soles or felloes of the wheels with a number of useless and destructive nails, the heads of which project considerably beyond the surface. Now, although there is a clause in the General Turnpike Act which directs a penalty on these nails when they project one quarter of an inch, yet the large-headed nails now used on a number of broad and narrow wheels, though not exceeding that measure, do so far project beyond the surface of the tire, that the entire weight of the burden rests on only two of these destructive and useless nails, viz., on one nail of each wheel,—than which nothing could be better devised to grind and penetrate into the hardest and best of road materials. These large-headed nails, from a succession of obstacles over which the wheel has to mount, and are therefore a serious obstacle to the effective working of the horses, and, it may be safely affirmed, are of no use whatever to the wheels themselves; because, if the nails were properly countersunk, and in a line with the surface of the tire, they would be as secure a fastening to the tire as if they projected a full inch. Inasmuch, therefore, as the large-headed nail is injurious to the roads,—is productive of increased labour to the horses,—and moreover is useless to the wheels themselves,—they ought to be prohibited by Act of Parliament. The legislature, it is true, in the penalty-clause on these projecting nails, intended to limit the size of them, but, as I have before shown, it is not at present of the least use, the allowance of one quarter of an inch being too much. An alteration in this clause, amounting to absolute prohibition, would have a happy effect, consulting both private advantage as well as public good.

Admitting the truth of the preceding remarks, respecting the present broad wheels and the heavy weights allowed them, it follows, that, instead of being encouraged, as they now are, by *low tolls*, and in some cases by an *entire exemption*, they ought to be subjected to a toll that would soon effect their extinction. The legislature, with a view of checking the use of these wheels, some time ago made provision in the General Turnpike Act, that the whole professed width of the felloes of the broad wheels should be made *flat*, and consequently press by one even surface on the road; but before the time arrived for its adoption, Parliament gave way, and it was repealed, in consequence of the petitions of the agriculturists, than whom no parties would have received more benefit,—for, if Surveyors of turnpike-roads have reason to object to the great and useless wear of road materials by those destructive wheels, have not the farmers (as surveyors of the highways), *more* reason to complain, when the injury must be still greater, arising from the inferiority of the material used in the repairs of parish-roads. Had the clause been permitted to come into operation when first proposed, the highways of a great part of the kingdom would not have been in their present wretched state, neither would a number of the turnpike-trusts have been so loaded with debt,—evils likely to continue, if persons are left, as they now are, to shape their wheels as they think fit, however mistaken their view of the supposed benefits derived by so doing. It is true, on referring to the Statutes-at-large, that clauses have been introduced into a *few* of the Acts for local trusts, passed within the last thirty years, for the purpose of securing properly-shaped broad wheels; and although the benefits may be very great to the funds of those turnpike-trusts, when the shape of the felloes of the wheels passing over them are improved, yet, as these wheels will probably have to pass over other roads, where the scale of tolls will be different to that now proposed, it appears rather unjust to other trusts, until this scale is generally adopted.

The legislature, by way of encouraging a wheel that would not injure the roads so much as those now in use, introduced into the General Turnpike Act a clause to the following effect, viz., Where carts or waggons have their wheels rolling on a flat surface,—the nails countersunk,—the wheels cylindrical, or of the same diameter in the inside next the carriage as on the outside,—the opposite ends of the axle-tree horizontal, and in one straight line,—the lower part of the wheels, when resting on the ground, being at the same distance from each other as the upper part of the wheels,—trustees are allowed to charge this kind of wheel, commonly called the UPRIGHT CYLINDRICAL WHEEL, a toll of not less than two-thirds as much as those now in use. These wheels are well adapted for turnpike and other roads, provided they were all equally hard, and free from ruts or holes; but we must bear in mind that nearly all the carts and waggons which travel on turnpike-roads are also used in the parish-roads, lanes, and fields, where, from the variety of surface there presented, it is found that these upright and cylindrical wheels are not able to resist the lateral pressure of the axle-tree on sloping ground, or where the wheels fall into a rut or hole; while the present dished wheel, now commonly used, by having its spokes inclined, becomes more perpendicular upon a sloping road, and consequently is better able to sustain the increased weight thus thrown upon it, and can resist with greater safety the lateral shock to which the nave of the wheel is liable in such situations. Although this clause relating to the *upright cylindrical wheels* has obtained a place in the General Turnpike Act for a number of years back, and trustees of roads have consequently been at liberty to make use of it as they thought fit, yet the wisdom of the legislature, in leaving it quite optional in turnpike-trusts to adopt this shape of wheels, is proved by the very few instances in which it has been brought into operation. Indeed, the want of strength in these wheels, together with their upright bearing, and other disadvantages, are such great drawbacks, that, while the *parish-roads* continue in their *present state*, it is impossible that the upright cylindrical wheel should come into general use.

The conclusion, therefore, on this point is, that although the present husbandry carriages are very destructive to roads, in consequence of the shape of the felloes of the wheels and the projecting nails, yet the principle of the wheel, as respects strength, is good; and in order to secure to it as much as possible the great advantage that the upright cylindrical wheel possesses, it will be necessary to alter only that part of the dished wheels which comes in contact with the road. The proposed clause now recommended would be to the following effect, viz. :—

CARRIAGES WITH WHEELS NOT HAVING A FLAT SURFACE, TO BE TREATED

AS CARRIAGES WITH NARROW WHEELS.—That all wheels of carriages, whereof the tire or sole shall be otherwise than on a perfectly flat or level surface throughout the whole breadth of four-and-a-half inches, or upwards, bearing equally on such flat or level surface,—with the nails entirely countersunk, and not projecting beyond the surface of the tire; or if the interior diameter of the wheel of any waggon, wain, cart, or other carriage, shall vary from the exterior diameter of such wheel more than one-twelfth part of the breadth of the tire-sole or bottom of the felloe thereof, shall pay the same toll, and be liable to be weighed, and to the same tolls and penalties for over-weight, and shall be subject to the same regulations and restrictions, with respect to weights, as any waggon, wain, cart, or other carriage, having the felloes of the wheels thereof of a less breadth than four-and-a-half inches at the bottom or soles thereof, is, or may be by law subject and liable to.

One very great recommendation in favour of this clause would be, that *many of the present broad and narrow wheels will, after some little alteration, be of the required shape*. The introduction of this single clause in all new Acts of Parliament would effect a great saving in the repairs of roads, whereas, by permitting the husbandry-carriages to continue in their present form, all the destructive wear of road-materials occasioned by these improper wheels would still be continued. But, on the other hand, the new clause has for its great object, *the putting on an extra toll on the present destructive wheels, and bringing into use a certain description that would not injure the materials of roads by more than two-thirds as much as those now employed*.

The above remarks were forwarded to NICHOLAS BROWN, Esq., Civil Engineer, Wakefield, and the following was his reply :—

“SIR,—I have received your communication and opinion as to the effect produced upon the public roads by the improper construction and mode of fitting-up carriage wheels, in which I perfectly coincide with you. The form in which they are generally made, is, to endeavour to throw the whole weight of the carriage, and its load, upon as narrow a portion of the wheel's periphery as possible, to decrease the friction of the wheel with the road: this is quite a mistaken notion, unless the surface of the road be so hard and impervious as not to allow the wheel to make any impression; for on the contrary, should the road be (as is generally termed) rutted, the friction is not only between the outer circumference of the wheel and the road, but that part of the tire which is of a smaller diameter, is working with considerable friction upon an inclined plane against the sides of the ruts, and by this oblique action is grinding the materials of the road to powder.

“The tire of the wheel ought, in all cases, whether broad or narrow, to be co-extensive with the outside of the felloes, and where there are two rims of tire upon the same wheel, there ought not to be any space betwixt the two rims; and the construction of the wheels and the axle, when fitted up, should be such that, when the tire of the wheels comes in contact with the surface of the road, they ought at that point to work truly horizontal, so that the whole breadth of the tire of each wheel shall have an equal bearing upon the road.

“The projecting nails also which fix the tire upon the felloes of the wheels, are a very considerable injury to any well-formed road, although they project no more than is limited by the General Turnpike Act. One of the heads of these nails coming in contact with a stone on the road, is almost sure to reduce it before the tire adjoining can render any assistance; these nails ought to be wholly countersunk.

“Perhaps a clause to the following effect, if introduced into your act, might answer a good purpose, and be the means of aiding that which no doubt was the intention of the legislature, viz., the preservation of the public roads.

CLAUSE.

“That the wheels of every cart, waggon, or other such carriage, shall be so constructed that the entire breadth of the tire of each wheel, when the same comes in contact with the surface of the road, shall be in one regular plane, and that the nails shall be countersunk, and not project beyond the surface of the tire. That for the purpose of ascertaining whether the wheels be so constructed or not, the trustees of the road shall cause a level plane to be formed, with flags or otherwise, at or near to each toll-gate upon the said road, and that it shall be lawful for the surveyor of the said

road, or for any one of the collectors of the tolls, to detain any cart, wagon, or other carriage, and cause the same to be placed upon any one of such planes, and if not found to be of the construction required by this Act, to be subject to the payment of one-half toll extra.

"I am, Sir, yours truly,

"NICHOLAS BROWN."

I cannot conclude without expressing my thanks for the excellent remarks of Mr. Brown.

As an efficient answer to any objections which may be raised by some of the agriculturists against the clause relating to the shape of wheels, I beg to quote the words of Lord Viscount Lowther, delivered before a Committee of the House of Lords in 1833 :—"In the 10th of Geo. IV., we took powers to follow up a clause in the General Turnpike Act with regard to wheels not being perfectly flat. Different Committees had recommended that a flat wheel should be used. We found practically, that it was very difficult to enforce such a regulation, since it would make all persons liable, unless the wheels were mathematically flat; we therefore allowed $\frac{1}{4}$ inch from a flat surface. There was some dissatisfaction at first, but the wheels are now made conformable to that plan, and this has been adopted, I believe, 50 miles round London, and it has been found, for the *protection of the roads, a very useful regulation, and is not now felt to be the least annoyance to the public.*"

Whilst the trustees of roads are renewing their acts, it is desirable to deal justly with all parties as respects the tolls to be demanded of them for the use of their road. It is on taking this view of the subject, that I would beg to make allusion to the hardship now arising from most of the existing acts,—the toll on asses being charged the same toll as horses; and as the Commissioners of the Metropolitan Turnpike-Roads have not thought it unworthy of notice, it appears only proper that other trusts should follow their example, particularly where the tolls are obliged to be at a high rate. The owners of these animals are generally very poor people, who have not the means of purchasing or maintaining horses; and (to pass over the trifling injury done to the roads by their light pressure, and at the slow rate they travel), it is evident that if asses were charged the same toll as horses, it would in many cases amount to more money than their owners could earn, and therefore the principle laid down by the Metropolitan Road Trustees, of charging asses one-half toll of horses, is an act of common justice worthy of imitation. As it matters not whether the asses be drawing a little cart, or not drawing at all, it is impossible that they can wear the road materials above one-half or one-third as much as horses.

To show the necessity of other alterations being made in the General Turnpike Act relative to the scale of tolls to be charged, and the weights to be allowed to the different widths of wheels, it ought to be observed, that the clauses in reference to these subjects were introduced into the General Turnpike Act more than thirty years ago, and have not been altered since; and as most of the turnpike-roads have had their hills so much reduced, and their valleys considerably elevated, and indeed the surface of these roads rendered so much firmer by the introduction of harder materials, as well as by a better system of management in repairs, a different arrangement in the scale of tolls is now required, in consequence of one horse frequently drawing heavier weights than two could draw when these clauses were first enacted.

Indeed, in addition to the reasons already stated, as calling for a complete

alteration in road-management, it may be remarked, that the Revenues of some of the most important lines of turnpike-roads have been so much diminished by the railways taking off nearly the whole of their profitable traffic, such as gigs, coaches, and posting, which previously passed over them, as well as the loss of a considerable amount of funds in composition and Statute-duty supplied to these roads from the townships through which they pass, previous to the last Highway Act; whilst the road-materials, manure, and other kinds of traffic, almost all of which are conveyed either on narrow or improperly-shaped broad wheels, (generally paying no toll whatever,) have not gone by the railways, but still pass on these roads; thus leaving the Interest of the Debts in most cases the same as when the tolls were twice, thrice, or fourfold their present amount;—all these drawbacks combined, render it more and more necessary, that efficient measures be adopted with as little delay as possible, so that the finances, as well as the condition of the roads, may be effectually improved by the introduction of a better system of management, which would secure more efficient services, as well as effect a saving in the quantity of materials by the general disuse of the improperly-shaped wheels alluded to. A decided check should also at once be given to the heavy weights now placed on narrow wheels, and which is so great on most of the roads passing into large towns, that scarcely any amount of toll can yield an adequate compensation, or any materials hitherto known can long resist.

The loaded carts and waggons of the Agriculturists seldom exceed the weights allowed by the General Turnpike Act, although the shape of their broad wheels is very objectionable, and it is to be feared will never be improved so long as the present scale is allowed to continue.

The introduction of a clause which would also authorize the checking of too heavy weights of one-horse carts and waggons, more particularly of narrow or improperly-shaped broad wheels, would be attended with little inconvenience to the owners of those conveyances in the rural districts, as they seldom transgress in this respect; indeed, the alteration would be a great boon to them, as the materials of their highways would not be so soon destroyed, were the properly-shaped broad wheels brought into more general use: it would, moreover, prove a great saving in the expense of the repairs of the turnpike-roads, of which the townships would reap the benefit, inasmuch as their liability to repair those roads is greatly on the increase, arising from the tolls collected on them being found inadequate for the purpose, by the railways taking off the usual traffic to such an extent, as will leave little more revenue for the use of many of the Trusts than will be sufficient to discharge the interest of the mortgage-debts; thus throwing the whole expense of repairs entirely into the hands of the townships.

When turnpike-trusts are thus unfortunately circumstanced, and more particularly when they do not, as a set-off, receive any assistance whatever from the rates to which the railways are subject, then the alterations here proposed will act beneficially to many of the townships, by protecting the roads from the wear of the destructive traffic alluded to; and which the owners are not in many cases liable to make good, except by tolls; and inasmuch as the greatest portion of them, (actually no less than nine-tenths in many cases) are neither residents nor rate-payers of those townships whose roads they cut up, (by conveying coal to towns from a distance,) the rate-payers are, to my own knowledge, subjected to a serious annual expense of from £200 to £400 and upwards per mile, to keep them in repair; a grievance which I now clearly perceive is greatly on the increase, with no prospect of redress, except by adopting measures somewhat similar to those now recommended.

Although it cannot but be admitted that the wasting effects of the ill-constructed wheels, and the heavy weights alluded to, may not be felt on some roads where the greatest proportion of the traffic is of the light profitable kind already described, yet on several of the eighteen turnpike-trusts leading into the town of Leeds, the carts are loaded to the extent of from 30 to 35, and even beyond 40 cwt. each; which, from being drawn by *one horse only*, are therefore not liable to be charged for over-weight: and from an exact account of this traffic taken during the winter-months, it was found, that no less than from 100 to 250 coal-carts *on narrow wheels*, so loaded, were, upon an average, daily passing over each of four of these roads; whilst the weights allowed to these wheels by the General Turnpike Act for *two horses* is only 30 cwt. An alteration in their shape as well as the weights to be allowed them, would not only improve the finances and condition of all these Trusts, but would also be an act of mercy to the poor animals drawing the excessive loads; thus promoting both private advantage and public good.

These results cannot be obtained without an alteration being made in the General Turnpike Act, inasmuch as carts and waggons drawn by *one horse only* are, by one of the statutes, exempted from being weighed, or from being charged for over-weight, no matter how heavy the load; whilst the burden actually laid upon many of them is from a half to one ton more than what the same Act allows for carts and waggons *drawn by two or more horses*. This oversight must have originated in the belief that *one horse* could never draw the weights set down in the Act, as allowed for *two horses*; and which no doubt was the case when the clauses alluded to were first enacted, as the roads were much inferior to what they are at present. I humbly submit, therefore, that an alteration in this respect should speedily take place; and as it will be shown elsewhere that the check has been carried out with such decided advantage, not only as respects the condition of the road itself, but as to the finances also, I have the greatest confidence in recommending the subject to the attention of our Legislators, so that the improved scale may receive the sanction of Parliament, and be applied on all the turnpike-trusts in the kingdom.

This portion of the subject ought not to be concluded without suggesting that a *great reduction be made* in the authorized scale of tolls for over-weight on all carts or waggons *when drawn by more than one horse*.

The present charge is exceedingly oppressive in many instances, and attended with much delay, contention, and expense, in bringing the offending parties before the Magistrates in order to compel payment, which annoyance might be entirely avoided, were the scale of tolls for over-weight greatly reduced, as proposed in Appendix, No. XIV., clause x., still leaving a sufficient penalty to operate as a check to excessive loads.

I have not time or space here to answer those persons who state very strongly, that they do not like to be interfered with, or dictated to, as to what kind or shape of wheels they should be required to use, in passing over roads; to such, nevertheless, I only just beg to hint, that the time has not yet arrived when our fellow-men are to do any act, or use any article whatever, without being held to some extent responsible for the damage they may cause to their fellow-men: no; human nature requires an oversight, and even a check being introduced in some cases very humiliating to think of;—for instance, what kind of a generation of cripples should we have, if the care of children working in factories, mills, and other similar places, were left to the tender mercies of their parents or their employers, the law being silent, and allowing of no interference whatever? What kind of weights and mea-

sures would be used for retailing the different articles used by the poor, if all sellers were allowed to act as they thought proper, and no check taken to detect the vast amount of frauds to which the public are liable? Numerous other instances might be referred to, showing the wisdom of interference in many cases; and the evils that would follow, were our fellow-men permitted to act just as their feelings, prejudices, or interests might suggest, regardless of the rights of others.

But to return to the subject in hand; and in order to bring the necessity and justice of some legal interference more clearly before all parties interested in this subject, I would beg to observe, that if, in adopting a scale of tolls, by which a check on heavily-loaded narrow, and improperly-shaped broad wheels may be given, an encouragement held out to properly-shaped flat wheels, doing far less injury to the materials of roads than the other kind of traffic generally in use, a benefit must inevitably be conferred, not only in respect of the funds of the road itself on which the scale of tolls is carried out, but, as the carts and other conveyances using these wheels will probably have to travel over nine miles of highways for every one mile of turnpike-road, an indirect benefit also arises to all parties using these highways, whether they be the rate-payers of any of the townships on the line, or adjoining those turnpike-roads where this improved scale of tolls is adopted; since not only the improved state of these roads would necessarily follow, but a diminished expenditure also in repairs, and would produce, I have no doubt, an annual saving of the highway-rates collected in each township on the line of road where it is adopted, far greater than they are frequently called upon to contribute towards repairing their portions of road on any turnpike-trust within their townships.

No. III.

LETTER TO SIR BENJAMIN HALL, BART., M.P., PRESIDENT OF THE GENERAL BOARD OF HEALTH, ON THE NEW BOARD OF HEALTH BILL, 1855; ON MACADAMIZING STREETS; AND REMOVING TOLL-GATES OUT OF LARGE TOWNS AND POPULOUS DISTRICTS.

SIR,—I heartily wish you success in your invaluable efforts of legislation, simply on the well-known principle that the *prevention* of diseases as much as possible is far better than the *curing* of them. You will perceive, if you should take the trouble of perusing the following remarks, that I am, in my humble vocation as a Road-Surveyor, wishful to see adopted simple measures for the *prevention* of road-materials being so soon ground to dust and mud, as they now are by the destructive kinds of traffic passing over them; and finding that a New Public Health Bill is before Parliament, and that many parties have just reason of complaint, being greatly opposed to any further continuation of toll-gates on turnpike roads in streets and roads near large towns and populous districts, I am induced to submit for your careful attention some facts bearing on this subject, which have come under my notice, as well as some observations on Macadamizing the streets and roads of the districts alluded to, in the sincere hope that some remedial clauses relative to these important matters may be introduced into your Bill.

The removal of all toll-gates now standing within a distance of at least two miles from the centre of all large towns, and ten miles from the centre of London, where I understand there are no less than one hundred and sixty; and the erection of weighing-machines on Macadamized roads near those towns, with a scale of weights adopted somewhat similar to the one now in use on the Leeds and Wakefield Trust, within the township of Hunslet and Borough of Leeds, would, in my humble opinion, be highly expedient. The scale is so generally approved of by the rate-payers of that township who now repair the road on which it is placed, that I venture to forward you a copy of it.

As an officer on Turnpike-Trusts, desirous of discharging my duty to the different parties interested in the question, I can only consistently recommend the removal of toll-gates out of towns, on condition that the parties relieved from them should be called upon to pay, in the shape of an annual rate, their share of the mortgage-debt of the turnpike-trusts on which those toll-gates are placed; for should even the repairs of the roads be thrown upon the towns, and the gates be removed out of the boroughs, where the turnpike-road debts amount to several thousands of pounds, without an equitable arrangement for the gradual repayment of the debts taking place, relief would be given to the rate-payers of those towns at the expense of the mortgagees of the tolls, as well as of the rate-payers of the rural and agricultural districts through which the turnpike-roads pass, the latter party having to pay the present amount of tolls at the gates within their districts, until the whole of the debts were paid off.

I would, to be brief, gladly lend my humble aid in this matter to parties desirous of removing the toll-gates forthwith out of towns, and leaving those to stand in the rural districts as at present, with the adoption of an amended scale of tolls and weights allowed to be carried, on condition that the rate-payers of towns relieved, should keep the portion of the turnpike-road within their townships in repair, as well as pay their share of the mortgage-debt gradually off. I have no sympathy whatever for those persons, who are frequently very clamorous to have all the toll-gates taken down that stand in their townships, without making any proposal themselves, or willingly agreeing to plans which have for their object the equitable adjustment and repayment of the debts of all Turnpike-Trusts within a limited period.

I am, Sir, yours most respectfully,

RICHARD BAYLDON.

Methley, near Wakefield, March 7th, 1855.

OBSERVING that a New Public Health Bill is now before Parliament, and that the Surveyor of the Borough of Birmingham had engaged to deliver a lecture to the members of the Leeds Public Improvement Society on Macadamizing the streets of large towns, I have felt it a duty to give publicity to the following facts and remarks, more or less bearing on these subjects, and which I trust will receive the candid consideration of parties interested in the question.

It would not be advisable to adopt the Macadamized plan of repairing any of the streets of such towns as Leeds, until a scale of weights, somewhat similar to that followed out on the Leeds and Wakefield Trust, is adopted on all the roads entering into towns, where heavy traffic on narrow as well as improperly-shaped broad wheels are much used. Having found, after seventeen years' experience on many of the most important roads round Leeds, that where there has been no power to check heavy weights on

narrow wheels, the expense of repairs has been great, and the roads nearly always out of order or in a state of repairing, many parts requiring to be renewed at least once, and sometimes twice, in twelve months; whereas on the Leeds and Wakefield Road, from having a complete check placed on heavy weights on narrow wheels and improperly-shaped broad ones, flat four-and-a-half-inch wheels (paying a moderate rate of toll) are now much used, leaving the surface of the road generally good, and lasting three or seven, and even ten years, without requiring to be repaired with additional material. Such wheels always wear the surface of the road smooth, make it easy to travel over, and leave little dust or mud; and being, moreover, almost entirely free from loose stones, they add greatly to the ease of the horses and comfort of the travellers, from the road not being so frequently repaired as those are where the heavy weights on narrow wheels rapidly destroy the materials, and consequently require incessant repairs.

During the year 1840, the debt on the Leeds and Wakefield Trust was upwards of £15,000, and is now less than £2,000, allowing the Commissioners, within the last six months, to remove all the tolls hitherto collected at the gates within the Borough of Leeds, and thus relinquishing more than £1,000 a year of revenue, previously collected on only one mile of road. The two weighing-machines now in use within the borough, are retained with the unanimous approval and for the express benefit of the rate-payers of the township of Hunslet in which they are placed; nevertheless, when the scale was adopted for the whole line of road in 1842, (and which was not so stringent on narrow wheels as the one now so unanimously approved of,) it met with all kinds of opposition, its author being burnt in effigy for two nights in succession, and not daring to venture to go out of his house during dark for two years. But it would appear that the successful results of the thirteen years' experience of the regulation has fully reconciled the rate-payers to the necessity of a decided check being put on heavy weights on narrow or improperly-shaped broad wheels, in order that the roads may always be kept in better order and at less expense.

The portion of road within the Borough of Leeds on the Leeds and Wakefield Road, is one continuous street of one mile and a half in length, being part of the township of Hunslet, and subject to so large an amount of traffic as to have cost in repairs, since 1840, sums varying from £490 to £1,000 per annum. The agreement of the Commissioners of the Trust and the Surveyors of the township of Hunslet, is, that all the traffic passing along their portion of road shall be subject to the regulations of the "*Table of Weights*," inserted at the close of these remarks. The arrangement is found to work well, for while it allows ninety-nine out of every hundred of the different kinds of traffic to pass the weighing-machines without the slightest interruption whatever, it has already nearly put a complete stop to the heavy weights on narrow wheels; all the heavy merchandize is now conveyed on properly-shaped broad wheels, doing the least possible injury to the road; even the drivers of the horses drawing them unanimously confess, that the weights allowed to pass toll-free are amply sufficient, and ought not to be increased. The repairs of this portion of the road, and also the superintendence of the weighing-machines, are still under the direction of the Surveyor of the Trust, who, after expending the toll raised for overweight, as well as a fixed amount supplied by the Trustees, calls upon the township of Hunslet for the remainder.

There are at present no less than thirty toll-bars and thirty side-chains in the Borough of Leeds, more than half of them within a distance of two miles

from the centre of the town, being under such circumstances both a great grievance and an excessive nuisance, and ought not to be tolerated, where an efficient remedy can be applied; but yet on no other road, out of the eighteen different Turnpike-Trusts leading into the borough of Leeds, can the Commissioners at present afford the public so great a boon of either removing the toll-gates out of the borough, or of adopting such a check on heavy weights with narrow wheels as that alluded to. I cannot, however, but think, from the best attention I have been able to give to the subject, that had those roads, during the last fifteen years, been placed under the same system of management as that adopted on the Leeds and Wakefield Trust, the toll-gates of many of them might also have been removed out of the borough, without any injury to the mortgagees of the tolls; whilst the finances of others would have been placed in a far more satisfactory state than at present, and the condition of repairs of every one of them have been greatly improved; it being generally admitted, that, since the flat wheels came into operation on the Leeds and Wakefield Road, it has been by far the best in the borough.

Another benefit still looms in the distance, since probably even before the close of next year the Debt on the Leeds and Wakefield Trust will be extinguished; and the question will then arise whether the Commissioners will lower the tolls to a less scale than what is charged on any other trust leading out of Leeds, or continue the present scale a few years longer, in order to raise funds to remove the steep ascent at Bell Hill, as well as make a diversion to avoid the narrow and dangerous part of the road at Lofthouse Gate.

Whilst I have endeavoured to show that the inhabitants of large towns and populous districts would receive a boon by the removal of toll-gates, and the erection of weighing-machines in their places, yet I must be permitted to observe, that the rate-payers of the country-parishes through which many turnpike-roads pass would only have justice done to them, were it rendered *imperative* that the clauses of the New Public Health Act, effecting these objects, should be made to apply to Boroughs, as well as all districts governed by an Improvement Act or Local Boards of Health; for I fear that if the clauses were only *permissive*, those trustees of turnpike-roads who were also residents and rate-payers of large towns, would in many cases resist the proposed change, particularly where the funds of the trust, instead of that of the rate-payers, are expended in repairing the streets and roads on their trust running to nearly the centre of the town; whilst the toll-gates, from being placed at such a distance from it, allows at least nineteen-twentieths of this traffic to use this part of the turnpike-road without contributing scarcely anything towards the repairs, such traffic not going through any of its toll-gates for weeks and months in succession; and what still further adds to the injustice is, that, in cases well known to me, a large amount of the present debt of those trusts was expended in making the streets and roads alluded to, and which now, in consequence of the railways taking off nearly all the through traffic of these roads, is made dependent on the traffic coming out of the country-districts; these, therefore, as the matter now stands, are held responsible for the funds required for the repairs of the whole line of road, whether in the town or country, as well as having to be burthened with the additional toll necessary for the payment of the interest of the debt, as well as the principal itself, the owners of the town-traffic alluded to being almost entirely free from any of these demands. When there were no railways to take off most of the through

traffic of the roads, the injustice was not perceived or felt ; but now that the funds can only be raised principally from short traffic, the rate-payers in the large towns alluded to should not only repair these roads, but be called upon to pay their fair share of the debt ; and surely they can have no just grounds of objection, since it can be proved that nearly the whole of the debt of many trusts was incurred for making improvements in their neighbourhood.

Upon a review of the recommendations contained in this paper, it will be seen that the objects principally in view are these :—

1st. Arrangements should be made in the New Public Health Act, as regards the equitable adjustment and gradual liquidation of the debts of the turnpike-trusts extending into boroughs and populous districts, so as to allow the immediate removal of all the toll-gates out of streets and roads near large towns, and obtaining powers to erect weighing-machines in their places, in order to check heavy weights on narrow wheels as well as improperly-shaped broad ones, taking care to allow ample weights to properly-shaped flat wheels, and not interfering in the slightest degree with gigs, coaches, or any other traffic whatever, passing along the roads.

2nd. The management of all streets, highways, and turnpike-roads within large towns and populous districts should be placed under the care of Town Councils or Local Boards of Health.

3rd. Were the above arrangements carried out, nine-tenths of the streets and roads in large towns might with great advantage be repaired on the Macadamized plan, instead of the pavement, which, from being often placed on a soft foundation, and from inferior stones being used, and the work carelessly performed, is soon out of order ; moreover, where the traffic is great, and the weights on narrow wheels excessive, a very uneven surface rapidly takes place, adding greatly to the draught of the horses, as well as being frequently painful to persons travelling even in conveyances with springs ; the incessant jolts and jerkings cause a wear and tear of materials, horses, and carriages, far more than when a perfectly smooth and uniform surface of road is retained. But if these pavements were removed, imperfect as many of them are, and the Macadamized plan substituted, without any check being put to heavy weights on narrow wheels, the condition of the roads, and the expense of repairs, would be worse than at present ; as it is found that small-broken-stone roads cannot resist the pressure caused by a very great intercourse, and heavy traffic on narrow wheels, which soon crushes and grinds to dust the best material, and easily converts it into mud ; whilst this hasty and continued destruction and renewal would, in such towns as Leeds, prove intolerably troublesome and expensive, since the dust in dry weather, and the mud in wet, would greatly incommode the intercourse in the streets, as well as fill the private dwellings and public shops with small particles of dust or dirt, amounting to an intolerable nuisance, alike injurious to the comfort and health of the inhabitants.

It remains for me to express my conviction, that, if any change in the management of turnpike-roads, of the importance of those which has been recommended, is to be carried into effect on the largest possible scale, and at the least expense to the public, it can only be successfully done through the medium of an Act of Parliament, such as the proposed amendment of the Public Health Act. One or two clauses would accomplish all that is proposed in this paper ; and having a firm belief that a candid statement of the beneficial results which have already arisen by their adoption on one important turnpike-trust, would sooner or later insure its success and popu-

larity in the country, as well as remove many misconceptions which now act prejudicially, not only to the financial state and prospects of turnpike-trusts and highways, but also to the annoyance and injury of persons travelling over them, as well as to all parties who have to contribute towards their repairs, either in the shape of tolls or rates,—such considerations have induced me, with all due respect and deference, to lay these facts and suggestions before the public, as a basis for legislating on the subject.

NO. IV.

TABLE OF WEIGHTS

Allowed to Carts, Waggons, &c. (including Carriage and Loading). applicable only to Traffic passing through Leathley Lane Toll-Bar, or Hunslet New Toll-Bar, and not going beyond, or coming from beyond, the boundary of the Borough of Leeds and Township of Hunslet, at Thwaite Gate, on the Leeds and Wakefield Turnpike-Road.

DESCRIPTION OF CARRIAGE AND WHEELS.	TONS.	CWTS.
CARTS, or other like Carriages, with Wheels under $4\frac{1}{2}$ inches in breadth.....	1	5
WAGGONS, or other like Four-wheeled Carriages, with Wheels under $4\frac{1}{2}$ inches in breadth	1	15
CARTS, or other like Carriages, with Wheels $4\frac{1}{2}$ inches or upwards, in breadth, and having perfectly flat Tire, and no projecting Nails.....	1	15
WAGGONS, or other like Four-wheeled Carriages, with Wheels $4\frac{1}{2}$ inches, or upwards, in breadth, and having perfectly flat Tire, and no projecting Nails ...	2	10

TOLLS FOR OVERWEIGHT, &c.

A TOLL of One Halfpenny to be charged for every Cwt., and fraction of a Cwt., above the weights specified.

BROAD WHEELS of $4\frac{1}{2}$ inches Tire, or upwards, which do not run flat on the whole breadth of Tire, or which have projecting Nails, to be liable to the same Toll for Overweight as Wheels under $4\frac{1}{2}$ inches in breadth.

WAGGONS, or other like Carriages, having the fore and hind Wheels so far distant from each other as not to allow all the Wheels to stand at once on the Weighing-Machine, to be charged a Toll of 4d. for each Horse drawing the same, when the Wheels are under $4\frac{1}{2}$ inches in breadth, and also when the Wheels are of that breadth or upwards, but do not run

perfectly flat on the whole breadth of Tire, or have projecting Nails; and 2d. per Horse when the Wheels are $4\frac{1}{2}$ inches or upwards in breadth, with perfectly flat Tire, and without projecting Nails.

CARTS. WAGGONS, or other like Carriages, with upright Cylindrical Wheels, six inches in breadth,—that is to say, the Wheels rolling on a flat surface,—the Nails countersunk,—the Wheels cylindrical, or of the same diameter in the inside next the Carriage as on the outside,—the opposite ends of the axle-tree horizontal, and in one straight line,—the lower part of the Wheels, when resting on the ground, being at the same distance from each other as the upper part of the Wheels,—shall not be liable to any Tolls for overweight.

CHARGES FOR WEIGHING.

The following Scale of Charges to be made for weighing Carts, &c., at the request of parties, when not necessary for the purposes of the Road, viz.:—

For every Cart or Waggon weighing 30 cwt., or under 3d.

And for every cwt. above 30 cwt., the sum of One Halfpenny per cwt. additional.

In every case where a Note is given, 3d. extra to be charged.

Whatever damage the Machine may sustain whilst weighing any Goods, or any Cart, Waggon, &c., the Owner of such Goods, Cart, Waggon, &c., shall be held liable to make good such damage.

No. V.

DEFECTIVE METHOD OF REPAIRING ROADS; WITH SUGGESTIONS OF AMENDMENT.

I have had thirty years' experience in the management of turnpike-trusts, and, through the confidence placed in me by the trustees of roads, have been enabled to introduce the flat four-and-a-half inch wheels, instead of narrow and improperly-shaped broad wheels, whereby the injury to the materials used in repairs is so greatly diminished, that the condition of the roads, where the flat wheels have come into general use, has been good, and the expenditure moderate,—so much so, that before these flat wheels were brought into operation, the expense of repairs exceeded the amount of tolls collected; but as they came gradually into use, the expenditure proportionately decreased. For instance, in the years 1838, 1839, and 1840, when there were vast numbers of carts with heavy weights on narrow wheels passing over the road, the expense of repairs alone, on the Leeds and Wakefield Road, exceeded the amount of tolls collected, leaving nothing for interest or liquidation of the debt of £15,000; whilst from 1843 to 1847, when the flat wheels had only been partially adopted, the condition of the road evidently improved, and the expense of repairs amounted to only half the receipt of tolls; from 1848 to 1851, the repairs were only one-third of the tolls; and from 1851 to the present period, the proportion

of expenditure in repairs has only been one-fourth of the amount of tolls. The debt is now entirely extinguished; which, together with the whole expense of repairs, has been paid out of the tolls alone; entirely exempting the townships on the line from any contribution during the last twenty years, except in the shape of tolls, such as all other parties pay when using the road.

Should the following suggestions and the twelve clauses elsewhere alluded to be adopted and properly carried out, on all turnpike-roads and highways, they would soon find the benefit of the change, not only as regards the improved condition of their roads, by the introduction of the properly-shaped broad wheels, instead of the destructive narrow and improperly-shaped ones now used, but the funds would be materially improved, by the saving in the expense of repairs. The experience I have had on the Leeds and Wakefield Trust for the last sixteen years, induces me to urge upon all parties interested in the management of roads the great benefit that must certainly arise from the *general use* of the improved kind of wheels alluded to.

Thus much as to the benefit of adopting flat wheels. Let me add a few remarks on other branches of road management. In the event of the improved scale of tolls being adopted, and the parish-surveyors applying better materials in repairs than is now used on many roads, care being taken that they be broken and applied at the proper season of the year, in a judicious manner, for a period extending over seven years, I have little hesitation in saying that an improved state of road would very soon become decidedly manifest, while the average expenses of repairs would not be more than two-thirds of the previous seven years' cost; justifying every effort now required, and any temporary sacrifice that might arise, in order to secure a better, safer, and easier means of communication between one town and another than now exists under the present management.

There are three parties interested in the management of turnpike-trusts, —1st. The mortgagees, many of whom care little for any matter connected with the roads, except that of securing the payment of their interest, and liquidation of the debt. 2nd. The townships on the lines of road; these have felt, and will ever feel it a great hardship so long as they continue to repair the road, and pay tolls also. 3rd. Those persons, who, from residing in the neighbourhood, or in pursuit of business, are obliged to pass along the lines of road. When such parties have to pay tolls for using the road, they are naturally discontented on having a rough and jolting surface in return for their money. Surely these last, no matter who they are, should have a voice in this matter, whether they be rate-payers on the lines of road, or parties from a distance; and for them I would now beg to appear as an advocate, and venture to say on their behalf,—That they will not object to pay a reasonable toll if a good road be provided in return, and they can be assured that it is properly applied.

Now to have a bad road in return for the toll, no matter how small, is an expensive affair: but in order to have a perfectly good road requires good material, and skill used in its application, taking care also that the wheels of the heavy conveyances passing over the road should be of a shape that will injure the material of which it is composed as little as possible.

Having pointed out the method by which the financial condition and prospects of many roads can be improved, I cannot dismiss this subject without alluding to the management adopted by the surveyors of the highways of the different townships who repair their portions of road on many trusts, as well as their own highways, in order that they may perceive how far it is

defective as contrasted with that system of repairing roads which has been adopted for the last thirty years on all the roads placed under my care.

Mr. J. L. Macadam, as well as his son, Sir James Macadam, no doubt made a great reformation in road-management; but neither of them appeared to have any idea of the great benefit to be derived by using means to set the materials as soon as possible after they were put on the road, and in the exact size as broken, and thus entirely relieving the horses from having to drag the wheels of the different kinds of traffic for weeks, and occasionally for months, until the material is perfectly consolidated. I use means to consolidate it at once, and thus immediately give the traveller a hard smooth road; and from being set in the solid body, it lasts twice as long; and during all the time it is wearing, presents a far harder and smoother road, than when the materials are put on in the usual way, without any binding materials being added or the road rolled. Materials will not set without a binding material, and if it be not applied, the wheels of the traffic have to grind a sufficient quantity of small dust, consuming in the process a third portion of the material before it can set. I repair the roads under my care principally in summer, and find it costs only half the labour and expense of putting on the material, that it would do if that work were performed in the short and wet days of winter. This also benefits the traffic; as it has a clear smooth surface of road to pass over during the whole of the winter-months; whereas, by adopting the usual method of putting on the materials during the wet weather and short days, great annoyance arises to the traveller as well as an increased expenditure in repairs.

Although a portion of rain or water is required before road-metals can unite into a firm mass, yet they never become perfectly consolidated until dry weather takes place. Consequently the body of road composed of materials applied during the winter season of the year, remains in a soft state for a considerable length of time, adding greatly to the draught of the horses. Finding this to be the case, and in order to annoy the traffic as little as possible, I have during the last thirty years generally applied the large bodies of road-metal during the spring, summer, or autumn, instead of winter; taking care always to cover it over with a portion of small blending material, to water the whole mass (if showers of rain do not save me the trouble), and to press the body well together with a heavy roller. These expenses are fully justified by the saving of manual labour that arises from workmen not having to be kept close at work for weeks and months, to prevent the formation of ruts, as they have to do when no blending materials are used, and no watering or rolling takes place—saying nothing of the ease of the horses drawing the different conveyances passing over the road, in consequence of the materials being so rapidly consolidated in dry weather, as compared with the annoyance for a great length of time when they are applied during winter.

Should a long frost occur before the metal is perfectly consolidated, additional annoyance to the public, as well as a wasteful expenditure of the funds will arise, from the grinding effects of the wheels of the traffic passing amongst the whole body of materials so long as they remain unset. Whereas during the winter season, from the main body having been previously applied in the long days of summer, and particular care being always taken during winter to keep the surface of the road as clear of dirt and water as quickly as possible, as well as obliterating even the appearance of ruts,—so that when a sudden hard frost takes place, by always acting in a way of expecting it, it proves a good friend so long as it continues, and the

public have a perfectly hard and smooth surface of road, free from roughness, ruts, or loose stones, allowing the traffic to pass over it with the greatest comfort and ease, whilst the wear of the surface is even less than would arise during the summer season.

In order to show the parish-surveyors how much better and cheaper it is for the public to repair the roads in summer than winter, and at once to use means to consolidate the surface of road as soon as possible, no matter as to the quality of material used, I would observe, that on many township-roads much of the money expended in road-repairs is thrown away by paying day-labourers for the little work they are able to perform during the short days of the winter-months, more particularly so when no check whatever is adopted as to the quantity of work performed. The men cannot do half the road-work in winter that they can in summer, arising from it being so soon dark, as well as from the materials and surface of road being generally wet, soft, and heavy, and a large portion of the time of the labourers being actually thrown away in only travelling from their homes to their work and back again. From this waste of money in day-labour in winter, the surveyors, for want of additional funds, are unable to purchase a sufficient quantity of material to secure a proper thickness of it to make a hard durable road well able to resist the wheels of traffic passing over it. Such roads as these, for want of materials, are always bad, or (which is equally annoying to the traveller) in a constant state of partial repairing, and seldom or never clear of ruts, as well as mud and loose stones. This management, besides being a nuisance to the public, is always attended with greater expense eventually, as compared with the system alluded to.

A thorough conviction of these facts will, I trust, justify every attempt that I can make to remedy them. Most of my road-work is performed in the summer-months, and I am fully convinced that if the system were adopted, it would be attended with general benefit to all parties interested in the management of roads.

Nearly all the parish-roads are in bad repair at all seasons of the year, although attended with considerable expense; but I am led to believe, that the system of repairing the turnpike-roads placed under my care during the last thirty years has had, more or less, its beneficial influence on the management of many of the township-highways adjoining those roads. Indeed this improvement became so manifest, that some of the township-surveyors wished me to supply them with good workmen, fully conversant with my system: others have at once followed this plan of repairing their roads in summer, and covering the material when first put on with a binding material, in order to set it in a solid body as soon as possible; several more have consulted me about road-repairs, on which I have tendered gratuitous advice, feeling amply repaid by the fact that I am diminishing the expense of repairing roads, as well as contributing to the comfort, ease, and happiness of both man and beast travelling over them.

My experience during the last sixteen years, as surveyor of many of the most important turnpike-trusts leading into Leeds, has convinced me, that I cannot long secure a good surface of road for the traffic to pass over, when heavily-loaded carts with narrow wheels are much used—no matter what quantity of material may be allowed, or however superior in quality, or whatever care or skill may be used in its management. Very recent experience, however, enables me to add, that when a road has only the general average of traffic, being nearly exempt from heavily-loaded narrow wheels, by bringing on to the road a superior kind of material for the repairs, and

applying it according to the system previously alluded to, namely, setting it in its solid body just as broken, I have been able to supply the public with a far better road, and at far less cost, as contrasted with the previous expense on the same trust, when different materials had been used, and the usual plan of road-management adopted. The following abstract will illustrate this fully:—

An account of the Expenditure in Repairs of the Leeds and Roundhay Road, being two-and-a-half miles in length, from 1851 to 1855 inclusive.

	1851.	1852.	1853.	1854.	1855.
	£	£	£	£	£
Manual Labour.....	127	130	132	154	116
Team Labour	75	95	64	108	61
Cost of Materials	146	197	177	270	103
Total.....	£348	422	373	532	280

The nett debts of the trust were much the same at the close of the years 1850 and 1854. The average annual expenditure for the four years 1851, 1852, 1853, and 1854 was £419, whilst, during the year 1855, it was only two-thirds of that amount. Taking one year with another, all these five years were much similar as to the weather affecting the wear of roads, as well as there being no perceptible difference in the kind and quantity of the traffic passing over the Leeds and Roundhay road; and yet it will be perceived that the expenditure in repairs during 1855; *being the first whole year of my management*, was only two-thirds of the amount of repairs which this road had cost upon an average for the four previous years; whilst its improved condition, not only in appearance, but in actual increased depth of material on the road, is evident, and generally admitted by all persons using it: fear was entertained, indeed, that it would be attended with an increased expenditure, but, from the facts above stated, that fear was evidently groundless. Surely all persons interested in the management of roads will bear these remarks in recollection, and urge that the system which has been attended with such beneficial results, may be more generally adopted on all other roads.

No. VI.

PARISH-ROADS, BY SIR HENRY PARNELL, BART.

The roads commonly called parish-roads, in England, are generally in a very imperfect condition. This is owing chiefly to the law, by which their management is placed under the governing authority of the vestries of the parishes through which they pass. Blackstone says, "In England every parish is bound, of common right, to keep the roads that go through it in good and sufficient repair, unless, by tenure of lands or otherwise, the care is conveyed to some particular persons."

The principle here established, of placing the highways of the kingdom under as many separate governing authorities as there are parishes, is, in every respect, repugnant to anything like a sound principle of management; and until it is abandoned, no efforts of legislation can prove successful in introducing any real improvement.

So long as this radical error in principle shall be recognized by Parliament, to pass Acts of Parliament containing a multitude of new regulations will be labour in vain. The influence of the original cause of the evils which prevail will render them, as they have rendered hundreds of similar regulations, wholly abortive.

Legislation on the highways of England, to be productive of any practical good, must be founded on a more enlarged view of the subject; and it seems advisable, that, instead of the governing authority of a parish, that of a county should be substituted, or, when counties are very large, that of a division of a county.

The reasons which may be given to support this general proposition are so obvious, that it is unnecessary to state them all in detail; a few only will be noticed. The first is, that the private interests of a vestry lead it to be satisfied with very imperfect highways. A road that will allow a waggon to be drawn upon it without much difficulty, will answer the purpose of those who commonly compose a vestry: such a road need not have any other qualities than two ruts for the waggon-wheels, and a track-way for the horses. The second reason is, that the limited extent and funds of a parish will not admit of giving such a salary to a surveyor as will secure the services of a person educated in the principles of road-management, or otherwise qualified for the office of surveyor.

Another great error in the system of parish-management consists in the regulation by which a surveyor is appointed to act only for one year. This practice is founded on the vulgar notion, that for the management of roads no education is required—that it is not an art to be directed by skill and science. It is a practice which may be set down as having its origin in very rude times, and made familiar by long usage; but it certainly is one which ought to be abolished in the present enlightened state of society.

To legislate, therefore, on sound principles, the old custom of seeking to amend what is wrong, by laws containing a multitude of new regulations, must be abandoned: the country-gentlemen who, as Members of Parliament, undertake the task of legislating on the subject, must look more to general principles; and, in order to succeed, they should no longer allow parish-vestries to be the governing authority, or surveyors to be appointed to act only for one year.

The principal alterations introduced into the law affecting highways by the last Highway Act, passed in 1835, are as follows:—

The surveyor under the old law was virtually selected by the magistrates; under the new law he is chosen by the inhabitants in vestry assembled, and in places where there is no vestry, at a public meeting of the ratepayers. The time of election is altered from the autumn to the spring, when the other parochial officers are chosen.

Statute-labour and all compositions in lieu thereof are abolished; and the expense attending the repair of all highways is to be defrayed by a rate levied in the same manner as the poor rate.

Provision is made for the appointment of a board of managers in populous districts, to discharge the duties of surveyors.

Parishes may unite for the purpose of forming unions or districts for the management of the roads, and district-surveyors may be appointed with salaries.

The law with reference to widening highways remains unaltered.

The mode of diverting and stopping up highways is entirely different from that under the old law, where two magistrates could in the first instance

make the order, subject to an appeal to the bench of magistrates at Quarter Sessions. Now, after certain notices had been given, and certain prescribed forms observed, which must be certified by two magistrates, the order is taken to the Quarter Sessions, to be made in the first instance; and in cases of appeal the magistrates present are directed to empanel a jury to try the merits of the case.

Presentment of roads by magistrates and constables is abolished. The power of indictment is reserved for extreme cases, and a more summary process before two magistrates prescribed in ordinary cases where roads are out of repair.

The remaining provisions of the Act, which refer to what may be called the police of the road, are assimilated as much as possible to the provisions of the General Turnpike Act.

For the purpose of ascertaining in what respect an old road is complete or defective, the following queries have been prepared. The answers that can be given to them will at once show what is the state of a road as regards repairs.

1st. What is the breadth of the road? Is it everywhere exactly the same? Is it defined by side-channels having along them curb-stones or borders of grass-sods?

2nd. Are the channels on each side of the road on the same level? Is the convexity of the surface uniformly the same in every part along the whole length of the road?

3rd. Is there a footpath? What is the height of it above the side of the road? What is its breadth? Of what materials is it composed?

4th. Is there any waste-land between the road and the fences of the road? In what state is it?

5th. Is the surface of the road higher than that of the adjacent fields?

6th. Of what materials does the crust of the road consist? What is the depth of them in the centre of the road, at a distance of five feet on each side of the centre, and at the sides?

7th. Are there sufficient drains for carrying off all rain and other water?

8th. Are the fences low? Are they raised on ground of the same level on both sides of the road? Are they of the same height on both sides, and parallel to each other?

The answers which can be given to these queries will show what the defects are of any road to which they are applied, and what is requisite to be done to improve it.

No. VII.

Arrangement of the Debts and Rates of Interest during Sessions 1855 on 56 Turnpike Trusts.

Original Debts.	Original Rates of Interest.	Revised Debts.	Future Rates of Interest.
£. s. d.	£. s.	£. s. d.	£. s.
313,276 0 9	At 5 0 per Cent.	90,583 14 0	At 4 0 per Cent.
35,225 0 0	„ 4 10 „	3,400 0 0	„ 3 15 „
22,145 6 8	„ 4 0 „	18,938 19 9	„ 3 10 „
4,237 10 0	„ 3 10 „	15,300 0 0	„ 3 5 „
31,867 16 8	„ 3 0 „	119,506 18 7	„ 3 0 „
2,950 0 0	Interest not stated.	3,800 0 0	„ 2 15 „
409,701 14 1	{ Added to Debt of the Gomersal and Dewsbury Trust.	18,905 0 0	„ 2 10 „
2,250 0 0		36,265 14 0	„ 2 0 „
		31,867 16 8	„ 1 15 „
		34,552 10 4	„ 1 0 „
		4,550 0 0	„ 0 10 „
		11,964 18 0	„ One Penny „
		8,282 8 5	Bearing no Interest.
		397,917 19 9	Debt extinguished.
		14,033 14 4	
		411,951 14 1	
411,951 14 1			

The Interest chargeable upon the above Debt of £409,701 14s. 1d. was at an average rate of about £4 13s. 11d. per Cent. per annum.

The Interest chargeable on the above Debt of £397,917 19s. 9d. will be at an average rate of about £2 13s. 11d. per Cent. per annum.

NO. VIII.

A Summary of the Alterations made in the Turnpike Debts during the last six Sessions, as shown in the Abstracts annexed to the General Reports of the Secretary of State presented to Parliament, 1856.

Date.	No. of Trusts.	Debt extinguished.			Interest extinguished.			Former Annual Interest.			Future Annual Interest.			Annual Saving of Interest.		
		£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
1850	15	30,375	13	9	78,198	11	11	10,974	17	5	5,482	12	9	5,492	4	8
1851	33	110,778	6	11	132,052	15	10	14,034	14	2	3,673	1	0	10,361	13	2
1852	57	96,058	12	9	327,162	19	4	17,831	10	8	6,598	9	4	11,233	1	4
1853	26	9,998	1	7	209,552	0	0	14,577	19	4	4,298	8	5	10,279	10	11
1854	33	13,203	13	7	98,611	8	5	7,790	18	2	4,218	12	8	3,572	5	6
1855	56	11,783	14	4	125,591	18	8	19,239	1	8	10,724	11	5	8,514	10	3
Total ...	220	272,198	2	11	971,169	14	2	84,449	1	5	34,995	15	7	49,453	5	10

No. IX.

ADVANTAGES OF COMMISSIONERS OF TURNPIKE-ROADS
KEEPING THE COLLECTION OF TOLLS IN THEIR OWN
HANDS.*To the Trustees of the Leeds and Ealand Turnpike-Road.*

GENTLEMEN,—Finding that “the Tolls arising at the several Toll-Gates upon the above Turnpike-Road, will be let by Auction to the best bidder, at the Royal Hotel, in Leeds, on Thursday, the 18th day of July next, at Twelve o'clock at noon, in the manner directed by the Act passed in the third year of the reign of His Majesty King George the Fourth, ‘For regulating Turnpike-Roads,’ which Tolls produced the last year the sum of £2,163 11s. 0d. above the expense of collecting them, and will be put up at that sum;”—I feel it my duty to state the grounds on which I still rest my humble opposition to the letting of tolls generally, and more particularly on this trust.

From having had the Collection of the Tolls placed under my care during the last five years, and having surveyed the road for ten years, I have been enabled to test the system; and, in order to prove the beneficial results of keeping the tolls in the hands of the trustees, I will lay before you the following facts:—My duties as Surveyor of your Road commenced in May, 1840. At the close of the year 1839, the nett total amount of your Mortgage and Floating Debts and unpaid Interest was £16,026 6s. 1d.; whilst, at the close of the year 1849, the nett amount of the same debts was £10,803 0s. 10d.; being a reduction of debts in the ten years amounting to £5,223 5s. 3d.; or after the rate of £522 per year; and by way of showing you that this reduction of debts is far greater than what took place in the ten years previous to my connection with your trust, I would observe, that, for the year 1830, the nett amount of the mortgage and floating debts and unpaid interest amounted to £15,677, whilst, as has been before observed, the nett amount of those debts for the year 1839 amounted to £16,026, being an increase of £349 in the ten years previous to my appointment. But I find there was spent the sum of £2,149 in improvements of the road during that time, which, after deducting the increase of debt of £349 alluded to, leaves a balance of £1,800, or £180 per year as reserved out of the funds towards those improvements; whereas there has been paid a total amount of £5,223, or £522 per year, during the ten years of my Surveyorship, being nearly three times the annual saving that arose during the ten years before my appointment. And in order to show you how closely the amounts derived from tolls and other receipts, in the latter ten years, approximate to the former, I find, on careful examination of every year's General Statement of your Trust for the last twenty years, that, for the ten years ending 1849, the aggregate revenue amounted to £30,201, whilst for the previous ten years it amounted to £29,890. The latter amount includes £1,143 received for Compositions from the townships of Hunslet, Holbeck, Churwell, Morley, and Beeston; whereas I have kept the road in repair entirely out of the tolls, not having received one single pence from these or any of the other six townships on the line; and from the road being now entirely repaired out of the Tolls alone, the eleven different townships are relieved from a burthen they were liable to previous to my appointment, to which all the townships on the lines of twelve out of the eighteen different Turnpike-Trusts within the Borough of Leeds are

now subject, to an extent only known to the Rate-payers of the townships themselves. Indeed, I am of opinion that most of them might be greatly relieved, and indeed some of them entirely exempted, from that excessive, not to say unjust demand, since they are called upon to repair the road for the nearly exclusive benefit of the Coal Owners, Carters, and Consumers of the Coal in Leeds, whilst nearly the whole of the Townships through which they pass derive little local advantage from these roads. Surely it is high time that those classes deriving the greatest advantage from these roads ought now to be called upon to contribute their due share towards their repairs, and no longer throw the burden *almost entirely* on the townships as at present arranged, arising both from the tolls being let, and the Trustees therefore not getting the whole proceeds, as also from the scale of tolls being fixed at far too low a rate, being little more than sufficient to pay the Interest of the Debts on the roads. Nearly all the parties using the roads, from not residing in, or paying rates to the townships through which they pass, cannot be made to contribute towards the repairs, except, when travelling, in the shape of tolls. By the trustees making a better regulation of the tolls, and keeping the collection of them in their own hands, the whole of the funds paid by the public are necessarily secured for the uses of the trusts.

Allow me to allude to two other Roads in this neighbourhood, where the Repairs, as well as the Collection of the Tolls, are placed under my care. The Tolls on the Leeds and Wakefield Road, for the three years previous to my appointment in 1840, realized about £6,000 per year, whilst the repairs and interest of debt alone cost £800 in each of these years, more than the funds could spare. Whereas, during the last ten years, while the tolls have raised upon an average only £2,600 per year, the debts have been reduced more than £6,000, besides paying the interest of the debt, and keeping the road in repair, without calling upon the townships for any assistance. The Leeds and Otley Road has had its Debt reduced £2,248 within the last five years; and Improvements to the extent of £1,928 have also been effected without adding to the Mortgage or other debts, making a saving to the extent of £4,176, being for the two roads a total of £10,176, and, with the £5,000 reduction of debt on your trust, making a total reduction of Debt or Improvement in the Finances of upwards of £15,000 within the last ten years.

Very few Roads placed under similar circumstances have had their Debts paid off to such an amount, to say nothing of the present improved condition of the Repairs of the thirty-two miles of these trusts, and leaving completely out of consideration the great amount of Highway-Rates to which all the twenty-seven different townships on these three roads were subject, previous to my appointment; to which, indeed, they would, to a serious amount, still have been liable, had not decisive and efficient measures been adopted; inasmuch as the Railways adjoining these trusts have reduced their toll-incomes from £13,000 per year to £6,000, whereas the debts still remain near £40,000, the interest of which must be provided for, before anything can be allowed for repairs.

The difference in the reduction of Debts of the Leeds and Wakefield, as compared with the Leeds and Ealand Trust, has arisen, principally, from the greater proportion of properly-shaped flat Wheels passing over the former road than on your's. Wheels, so constructed, do far less injury to roads than narrow wheels. The superiority of such wheels, in the case of the above road, is the more marked and conspicuous, because, as respects

the cost of repairs, the Leeds and Ealand Trust has a great advantage in the price of Materials; the average cost per ton on your trust is 5s., whilst on the Leeds and Wakefield Trust it is 7s. per Ton; but this advantage is counterbalanced by the power given to the Leeds and Wakefield Trust (which you do not possess), enabling them to check heavy weights on narrow wheels, and allowing them to charge a toll on these, and also on improperly-shaped broad wheels, of double the amount chargeable on properly-shaped $4\frac{1}{2}$ inch flat wheels. This check has had its desired effect, as a few years ago not more than one in 100 of the coal-carts and waggon-wheels passing over that road were of the proper shape; whereas now, five out of six of them are of the improved kind, but which cannot be brought into general use until a new scale of tolls be introduced in the Turnpike-Act in place of the very imperfect one there set forth.

The proportion of the properly-shaped flat wheels, as compared with the destructive kind now passing over the seventeen other Turnpike-Trusts round Leeds, will at present bear no more favourable appearance than presented itself to the consideration of the Trustees of the Leeds and Wakefield Road ten years ago, as being the cause, in their opinion, of the great pecuniary difficulties by which they were surrounded, and which led them to adopt the remedial measures which have resulted in such decided success. *Far less Material is now required for Repairs—2,000 Tons per year being found quite sufficient, whereas from 10 to 12,000 Tons were formerly used.*

After having, I trust, clearly stated the amount of saving that has arisen to the Leeds and Ealand and other Roads during the ten years ending 1849, as compared with the previous ten years, I will now lay before you the plans which have been carried out on your road, all of which have, more or less, tended to secure the beneficial results alluded to; and as I clearly perceive some of these plans will be materially affected in the event of your again letting the Tolls, I will, therefore, at once proceed to mention them.

1st.—By economizing the Day and Contract Work performed on the road, and yet allowing the workmen a remunerative price for their labour.

2nd.—By a system of applying the Materials in repairing the road, so that the whole has been consolidated in one firm and solid body, each single stone remaining the same size as when broken and first applied on the road.

3rd.—By retaining the Collection of the Tolls in the hands of the trustees for the last five years; and by ascertaining the amount of traffic and value of the tolls paid by the public during each of the previous five years, founded on a careful observation at different periods of the year, before letting the tolls; whereby the trustees have been enabled to secure a greater amount of Funds from the Lessees than would have been obtained had no such check been taken.*

I refer you to the Table inserted at the close of this Report, where the gradual diminution of the traffic on your trust, arising from the opening of the Lancashire and Yorkshire and other Railways, may be perceived.

My experience on many other trusts, where the repairs of the road as well as the collection of the tolls have been placed under my care for several years,

* During one week of each of the first seven months of 1845, I took an account of the Traffic passing over six different Turnpike-Roads in the neighbourhood of Leeds, at an aggregate expense of £120, in order to ascertain the value of the Tolls which for the *previous* year had been let for the aggregate sum of £8,731; but for the year *after* I had taken the Traffic, they produced £10,983,—being an advance of 26 per cent. upon the old letting.

justifies me in observing that it will be several years before the ebbing and flowing of the traffic passing over your road will have settled down to what may be called a natural level, rendering any further reduction, from the different Railways either running parallel to this trust, or intersecting it, altogether improbable. These circumstances considered, will, I trust, fully excuse me from naming the amount which it would be desirable for you to fix upon, as the reserve-bid for the forthcoming Toll-letting.

Keeping the Tolls of the Road in your own hands can alone enable you to secure the full amount of revenue derived from the traffic upon it. The Lessees who may take the road may perhaps, with working with others alongside of it, give you a greater amount than is now produced; but this benefit, only apparent, will be overbalanced by the increased expenditure in repairs, arising from the greater amount of traffic forced upon it, on a scale (in many instances) far below that which ought to be paid; for I have known cases where the Lessees have employed agents to *give parties something* to come on their road in order to keep off the regular traffic, and thereby reduce the tolls of a rival lessee. A Toll-Contractor some time ago bid the Clerk of the Leeds and Wakefield Road £500 more than the tolls were then producing, but the trustees at once rejected the offer, seeing that the increased traffic which would be brought unto the road would probably occasion an increased expenditure in repairs of double the amount of the advanced bid.

As an additional reason why the Trustees should keep the Collection of the Tolls in their own hands at this critical period, when the greatest economy in every branch of road-management is required (in consequence of the revenues on many of the most important turnpike-trusts being so much reduced by the opening of the Railways in their neighbourhood,) I would remind you, that, by having the repairs of the road, as well as the collection of the tolls, placed under my care, I have been able to place at the toll-gates on the line of road some of my District-Men, being labourers constantly employed on the road,—where they have been near their work. The wife, being the collector of tolls, can afford to attend to the duties belonging to the situation at much less wages than are usually paid, in consequence of the husband being regularly employed on the road. Indeed, next to the large debt of gratitude which I feel I owe to yourselves, as well as to all bodies of trustees of roads when they give me their confidence, and allow me to manage the road, as well as the collection of the tolls, in such a way as from experience I find best; I cannot resist the expression of my obligation to the Toll-Collectors under my care, and more particularly to the District-Men working on the Road. The latter class, I may add, are really “Working Surveyors,” having from two to five miles under their superintendence, and, from taking a deep interest in their work, have greatly improved the road, and by consequence the finances of the trust. From having had many of them from 5, 10, to 20 years, they know my method, and are receiving remuneration which fully satisfies them, and secures their best services to the interest of the road; yet it is a remarkable fact, and perhaps in this place not unworthy of notice, that, during the whole of the 25 years I have surveyed roads, not more than one out of every ten of my district-men have been able to write out their accounts of the time and money due for the different labour performed on that portion placed under their care: indeed not one of them now employed on this trust can write out his own Weekly Return of Labour, but they obtain the aid of the toll-collector nearest the portion of road they look after, who, from being also in my employment, willingly renders them the required aid, as well as pays each man separately; thus serving as a check to some extent

in preventing any fraud upon the trust: the account is forwarded by the toll-collector to me along with his Weekly Receipts of Toll, after deducting from it his own wages and that paid to the workmen.

Now if you let the Tolls, I shall probably be deprived of this check, as neither myself nor my district-men can call upon the new toll-collectors for the least assistance in the matter without remunerating them for their trouble. Indeed many of the toll-collectors on this and other roads under my care receive no emolument beyond their stated wages for performing several other duties, such as weighing Dross at the Weighing-Machines assigned to them, which will also have to be done by the collectors of the lessees and paid for: the charges for this duty are in some cases serious; as I find in one year there was paid to the toll-collectors for weighing the road-material £14, and nearly £23 in another year.

Again, in the event of letting the tolls, whether you secure their full amount of value or obtain a less sum than they may be really worth, you will incur a risk of not only injuring yourselves but also all the townships on the other four turnpike-roads which either run parallel to, or are intersected by your trust,—arising from the circumstance of each of those roads having now a portion of traffic passing over them which properly belongs to your trust. This traffic has only been drawn off by the extremely low toll generally charged by the toll-collectors of the other trusts; and without which, in consequence of all those roads being generally kept in far inferior repair as compared with your trust, it would not pass over them at all. The Tolls of all these four roads are at the present time in the same hands, and therefore should you let your tolls to these lessees, the respective trustees will, at the future toll-lettings of their trusts, be more or less completely at the mercy of the lessees, seeing that they can give orders for all the toll-collectors on your road to charge a less toll, in order to draw back the traffic which has gradually left it during the last five years. Other toll-contractors, knowing that the lessees of your road can, by such means, divert much of the traffic which properly belongs to such roads, will be deterred from bidding for the tolls; and therefore unless you, as well as the trustees of the other roads, mutually agree to keep the collection of them in your own hands, you will suffer an imposition to be played off upon yourselves at the expense of the Rate-payers of all the Townships on these roads, inasmuch as they (the rate-payers) are helpless, having no choice but to make up deficiencies, no matter from what cause arising,—being legally liable to repair all turnpike-roads passing through their townships, when the toll-funds are not sufficient for the payment of interest of the debt and keeping the road in repair.

Should you, however, after considering these objections, and many others which I could mention against Toll-Lettings, and which will no doubt more or less present themselves to your own minds, agree to let the tolls for one single year more by way of trial, and in the face of such experience as I have attempted now to lay before you at this as well as other previous opportunities; I would still remind you that you will not be able satisfactorily to offer them again, without you give orders for an Account to be taken of the Number of all the different kinds of Traffic passing over the Road, during one week of several months previous to the next Letting, the cost of which for the last time it was taken amounted to upwards of £30. I dare not risk an opinion as to the value of your tolls without such a check being sanctioned and adopted, since all must be guess-work without it.

I would also venture further to remind you, that I cannot reasonably be supposed to have any mercenary feeling in this case, seeing that for superin-

tending the eight toll collectors on the fourteen miles of your road, keeping a separate account of all the different kinds of traffic, and amount of tolls received at each bar, and paying the produce every week into the hands of your treasurer, I have consented to receive £20 per year, being not more than one per cent. on the nett produce of tolls collected. This cannot but be considered the minimum price of remuneration for such work and responsibility. No lessee surely could be expected to take your tolls for any such corresponding pittance, running moreover a risk to make up that gradual reduction of traffic which must, more or less, be expected for several years to come by the opening of the Leeds and Dewsbury, Lancashire and Yorkshire, and other Railways; therefore, if the Lessees, in self-defence, be driven to make such arrangement of the rate of tolls and traffic on the different lines of road connected with your's as have been alluded to, in order to secure a profit to themselves, and at the certain ultimate loss to your road, as well as the townships on all the others adjoining, you will, by letting the tolls, thus be made a party to arrangements working in the issue most injuriously to every one connected with it.

The whole of the evil of Toll-Letting may be summed up in this,—that the Public have a worse article, and pay more for it, eventually, than for a good one. The Lessees have no interest but in making a profit—hence they wear out the road; and though some persons using it are benefitted by low tolls, that is counterbalanced by bad roads; and the rate-payers have to pay, not merely what goes in profit to the Lessees, and which, under the management of the trustees, would go to repair the road and the payment of mortgage and other debts, but the additional cost of repairs arising from the ruthless abuse of the road. On the contrary, the interest of the trustees, when they collect the tolls themselves, is to make the most of them at the least wear and tear of the road. Hence they economise in every department, they have the best work and workmen, and they see to it that all regulations as to wheels, weights, and other matters, are enforced.

Indeed, to conclude, it would, in my humble opinion, be taking a retrograde movement to let the tolls on your trust again, even at *any price*: it will inevitably deteriorate the condition of the road: and however some few rate-payers residing in your and other lines of road now under my care may not appreciate a management which relieves them from an oppressive burden to which they were previously subject, still I am enabled with pleasure to affirm, that some respectable individuals have recorded their grateful acknowledgments for the improved state of these roads, as well as their financial position and prospect, since they came under my control.

It may be that, some years hence, not more than one-half the present rate of toll will be needed; and then, when naturally asking the cause of so altered and enviable a change, it will be told the enquirer, that, in consequence of the Mortgage-Debts being entirely discharged, the whole toll is expended in repairs, so that at once a reduced toll and better roads are the necessary result. And here I can exemplify it by a reference to the Leeds and Wakefield Road:—The Tolls average £2,600 a year: £450 of this amount is paid for Interest on Mortgages, and £1,200 for repairs, leaving a balance of nearly £1,000 towards liquidating the debt; so that in all probability, within seven or eight years, from the burden of the debt being reduced to £2,000, and requiring £100 a year for the payment of its interest, and supposing the traffic and repairs to continue as at present, the tolls may be safely reduced in the proportion I have intimated, and your trust in all probability will a few years afterwards share in the same happy result.

Then will come the period, when all the parties using these roads will realize the substantial benefit, and be able to appreciate your policy, and that of other Trustees, having patiently and perseveringly followed the plans I have suggested, as contrasted with the long mismanagement and gross neglect of other roads, rendering them not only utterly unable to afford the public the least relief in the shape of reduced Tolls, but leaving the Bondholders in no better state than at present, while the townships will still be oppressed with the charge of keeping them in repair to an indefinite period, being unable to compete with either the railways or those roads whose tolls have been so much reduced as to draw off a large portion of the traffic which at present passes over these mis-managed roads.

It may be that the individual now addressing you will not be spared to witness the day when the tolls on all the roads under his care may safely be reduced to one-half of the existing scale; yet he can rejoice in the reflection that probably some of those Trustees, by whose confidence and support he has alone been able to lay the foundation of plans leading to such successful results, will reap that reward to which their disinterested and persevering efforts have so well entitled them.

In conclusion, I would just observe, that I have felt it a duty, as well as a pleasure and a privilege, to lay before you, and other parties interested in the subject, the result of a lengthened experience and (as I think) close observation in turnpike affairs and management, in the hope that I might enable you to discharge in a satisfactory manner the great public trust committed to your care.

You will find inserted at the close of this address, No. X, papers on the Evils of Turnpike-Toll-Lettings, which I trust will be found useful on the present occasion.

I am, Gentlemen,

Your's faithfully,

Leeds, July 12th, 1850.

RICHARD BAYLDON.

LEEDS AND EALAND TURNPIKE-ROAD.

ACCOUNT of the TOLLS Collected at all the Bars and Chains on the above Road, during the Twelve Months ending June 30th of the following year.

No.	1846.			1847.			1848.			1849.			1850.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
1.—Stage-Coaches.....	369	5	6	360	7	4	216	2	2	111	16	6	73	1	10
2.—Gigs, Spring-Carts, &c.	554	16	9½	557	5	6½	595	18	9	444	1	3	361	17	0
3.—Common Carriers	181	15	1	196	19	9½	196	11	0½	142	19	0	40	17	0
4.—6-inch Wheels, not Coals ...	95	15	3	111	5	0½	109	8	9	96	10	2	89	6	1
5.—4½-inch do. do.	60	6	10	103	8	0½	50	3	11	59	18	11½	65	2	9
6.—Narrow do. do.	1,156	13	6½	1,027	13	3	1,001	14	6	927	8	11	916	7	9
7.—6-inch Wheels, Coals	39	13	9	53	17	7½	34	10	0½	23	15	10	27	3	9
8.—4½-inch do. do.	14	3	0½	21	4	9	29	15	5½	24	15	7	21	13	8
9.—Narrow do. do.	789	11	8½	745	0	10	621	7	8	581	9	4	578	8	9½
10.—Horses not drawing	133	1	8½	124	6	7	115	18	11½	96	17	2	83	16	4
11.—Oxen.....	16	16	5	24	15	0	20	7	0	20	18	1	10	6	0½
12.—Sheep, &c.	21	7	8	20	17	9½	16	13	0	12	14	2½	9	7	4
13.—Weighing and Overweight...	5	15	2½	12	0	9	0	15	5	4	19	11	7	17	9
Gross Total.....	3,438	2	6	3,359	2	4	3,009	6	8	2,548	4	11	2,285	6	1
Toll-Collectors' Wages	220	10	5	222	15	8	225	14	0	217	15	2	188	8	0
Net Amount.....	3,217	12	1	3,136	6	8	2,783	12	8	2,330	9	9	2,096	18	1

No. X.

EVILS OF TURNPIKE-TOLL LETTINGS.

The following Extract, on the Evils of Turnpike-Toll Letting, is made from a Report which was presented to the Trustees of the Wakefield and Sheffield Turnpike-Road, in 1841; my observation and experience have too truly confirmed the representation; and in the fulness of my belief of its importance, I cannot cease to embrace any opportunity of enforcing it, till every Trustee shall alike become sensible of its truth.

In whatever way this desirable turn to the finances of the roads is to be given, the working out the proposed clauses to a successful issue ought not to be left in the hands of the toll-contractors, but should be thrown upon the different road-surveyors, who, supposing they possess a requisite talent to devise, and also energy, zeal, independence, and fidelity to carry them into operation, ought (without which no good whatever can be accomplished) to have the support and confidence of the trustees themselves.

Fully aware, gentlemen, of the common objections raised against trustees taking the collection of the tolls into their own hands, I am yet, after the fullest examination of the subject in all its bearings, thoroughly convinced that the trustees should never let them. Is it not quite evident that no parties would take them at all, without a prospect of profit? now this profit none of the roads can by any means spare: in order to swell that profit as much as possible, various expedients are resorted to. If it can be ascertained that the trustees are really determined to let their tolls, a system of buying over and feeling frequently exists which is incredible. Persons run from one toll-letting to another solely with the hope of having their opposition bought off with a fee, the amount of which varies according to the wealth of the parties, and the value of the tolls at stake.

Should an individual amongst them feel disposed to try his hand, either alone or in conjunction with others, to the exclusion of parties who have usually monopolized the tolls in that part, and who may at the time hold some of the adjoining trusts, the biddings under these circumstances are allowed to run up, in many cases even beyond the real value of the tolls; in this event, the new toll-adventurer, by way of punishment, is permitted to go off with his *prize*: but here his adversaries do not stop. An attempt is quickly made to ruin him in some such way as follows:—Had the regular traffic continued, it might have realized the rent he gives for it, but from the inducement of low tolls, charged by the disappointed parties on the adjoining trusts, many are now influenced to leave their old route, and, for the sake of saving a few pence, to travel on a worse and even a more circuitous one; and if, at this change of tenancy, the supposed intruder occupies a road where the trustees have found it absolutely necessary to advance the tolls, the falling-off in the revenue is, for a season, very large; and, let it be borne in mind, that the portion of traffic thus driven from its legitimate line has greatly injured the road on which it has been induced to pass (at a charge, in most cases, of a mere fraction of the proper toll), which serious injury often falls upon the townships, who have the roads to repair, and who are thus so unjustly and cruelly made to pander to the vindictive feelings of disappointed toll-contractors.

There are few roads but what have been more or less subjected to this grievance. One of the most recent cases of hardship, arising from traffic being induced to travel on roads at a mere fraction of their proper tolls, is

that in the township where I reside. The charge on the Leeds and Wakefield Road for certain traffic, varying according to the distance, is from 9d. to 6d., and the charge of a toll gate for similar traffic on an adjoining road is 4d. On the former trust, funds are collected amply sufficient to keep the road in repair out of the tolls alone, whilst the latter trust is thrown up to the townships; and the contractors of the tolls, by way of inducing the traffic to leave its regular route, and to pass on their road, and consequently to injure the Leeds and Wakefield Trust, have latterly actually charged only *one penny* for each load, where we find it necessary to charge 6d. or 9d. to make good the damage, and free the townships through which it passes from contributing anything towards the repairs, except such tolls as they may be liable to, in like manner as all other traffic passing over it.

This is by no means a solitary case; and I know of no effectual plan of putting a check to such dishonest practice, except that of consolidating the turnpike-trusts, and, as respects the neighbourhood of Leeds, *fixing one uniform rate of toll*, which should not be let to any parties, but collected and appropriated to the expenses of each separate trust.

Your collector of tolls at Sandal Bar (who was also employed by the trustees at Pitts-Moor Gate about eighteen years ago) can testify that, in many cases, the late collectors charged only $4\frac{1}{2}$ d. each horse for narrow wheels, instead of 9d., whilst some of the properly-shaped flat wheels of $4\frac{1}{2}$ inches broad were charged $7\frac{1}{2}$ d. instead of 6d., thus actually giving encouragement to the destructive narrow wheels, and charging the best shaped ones on the road more than the scale. This is one out of many of the evils which accrue from the system of letting tolls. The contractors care nothing about the injury sustained to the road by the different traffic, their main object being to realize the greatest possible amount of revenue. Even where they have diminished their toll to parties, as an inducement to come on the road, the reduction has been made utterly regardless of the weight, shape, or width of wheels, the distance passed on the road, or the respectability, poverty, or ability of the parties paying the toll.

It was a knowledge of these facts, and their very injurious tendency, combined with a desire of preserving, for the benefit of the road itself, *the whole of their produce*, that induced me to recommend the trustees to keep the collection of the tolls in their own hands, and support their surveyors in their efforts to deal fairly to all parties. The responsible and invidious duties attached to the office are such as completely to quench the zeal of any man, except he is determined to maintain the interest of the road at every hazard; indeed the opposition that must be withstood from interested parties will be of the most trying nature, and through which nothing but unshrinking independence and faithfulness can possibly carry him. If he fail here, from want of confidence, either in himself or from the body of trustees, persons favourable to toll-contractors (from finding that they paid less in tolls to those parties previously than during the time they have been placed in the hands of the commissioners), will of course feel desirous, and use every means of recommending that the old system be again acted upon, thus leaving the trustees to get out of their difficulties in the best way they are able. I have already seen, and expect incessantly to experience a repetition of these efforts of interested parties for again letting the tolls (regardless alike of the outstanding debts, and the expenditure of the repairs); and in order to resist these assaults, it requires the utmost firmness, both from yourselves and your surveyors.

Allusion has already been made to the method adopted by the toll-con-

tractors, of securing (almost to a certainty) a considerable amount of profit out of the tolls. Here, gentlemen, you are deeply interested, as the funds of the road have not a farthing to spare to toll-contractors, or indeed to any other persons, except those who perform services to the full value of their remuneration. If the tolls were let next month, the parties alluded to could give at least £200 more than is at present obtained, and also secure to themselves a profit varying from £150 to £300; but then, and to my end of the road alone I can speak with confidence, it would require considerable more than the amount I have put down to repair this road for 1841, arising from an increased amount of traffic, which the toll-contractors would pour upon this road at an exceedingly low rate of toll, without which it would not pass on it at all. Although, for a very short period, this might apparently benefit the funds, they would soon become far worse than at present, from the increased expenditure in repairs; whilst as respects the introduction of the clauses relative to the shape of the wheels, and their being properly tried, all hope of these salutary changes would be out of the question.

Hunslet, Leeds, May 1st, 1841.

Within a few weeks after the above report had been presented, an old offender in this what I cannot but term criminal mode of doing business, called at my house, and stated that I had by no means exaggerated the evil of toll-letting; and inasmuch as I was engaged on one of the roads that had been tampered with, much in the same way as I had described, he assured me that even at the very last toll-letting, he knew that the lessee of the tolls had, previously to their being offered by the trustees, bought off all opposition at a cost of £300, which were distributed in £30 shares to ten different parties present at the meeting. The person who related this circumstance, frankly confessed that he was one of the individuals who received a share of the booty; and which, perhaps, I should never have had an opportunity of knowing, had not the parties alluded to squabbled about a division of spoil on a subsequent and similar occasion. To obviate any doubt as to the truth of those facts, I can give, if necessary, both the name of the individual as well as the road alluded to.

Indeed one or two circumstances, recently coming under my own special notice, more particularly in connection with the road in question, have convinced me, and must, I think, convince any impartial individual, that were the man's assertion as to the giving or amount of the bribe quite unfounded, yet that the tolls had been let very far short of their full value, as the following facts will make quite clear. For several months previous to the toll-letting, I placed on my own responsibility competent persons near each of the toll-gates on the road alluded to, so that a moderately correct estimate could be made of the numbers of each kind of traffic, as well as the amount of tolls paid for using the road, the result of which I did not disclose until I had attended the meeting for the letting of tolls, and heard the opinions of the trustees themselves as to the amount of their reserve-bid. So exceedingly imperfect was their knowledge on the subject, that one of the oldest and most active, as well as I believe most respectable and conscientious trustees of the line, gave it as his deliberate opinion, that they must make themselves contented with receiving about £700 per year less in tolls for the following year as compared with the previous one, as he had calculated that the railway then just opened in the vicinity of the road had taken off coaches, gigs, stage-waggons, and other traffic at least to that

amount; so far as regards the amount taken off by the railway, it is in all likelihood true; but I know, and indeed have proved by the estimate which I presented to the meeting, *that the tolls then actually paid by the public*, even after the road had been thus stripped by the railway, were actually greater in amount than that received by the trust from the toll-contractors previously to the opening of the railway: indeed this amount, which has increased ever since that event, together with an improved management, has enabled the trustees of that road gradually to discharge the floating debt of £1,800 then owing, as well as pay off the sum of £1,000 of the bonded debt at the commencement of the present year, whilst the road itself was never known to be so good, nor the toll-houses or gates in such excellent repair; and therefore, what with the liquidation of debts, and improvement of the property of the trust, it may safely be stated, that, at the close of the present year, the road-finances will be in better circumstances by from £5 to £6,000 as compared with the period when they were placed under my care six years ago. And on referring to the comparative finances of another trust in this neighbourhood, and which was put into my hands about the same period as the one alluded to, pretty nearly the same results have arisen, viz., the finances and condition of the road and the property of the trust being at present increased in value from £5 to £6,000 as compared with the previous period.

Hunslet, Leeds, Oct. 6th, 1846.

No. XI.

EVILS OF LETTING ROAD-REPAIRS BY CONTRACT.

THE following extracts from the examinations before different committees of the House of Commons furnish a strong corroboration of the evils of letting road-repairs by the mile, or what is termed lumping-sum contracts.

Extract from the Examination of Mr. Thomas Penson, Surveyor of the Montgomery District of Roads, who has 350 miles of Turnpike-Roads under his immediate management. Sessions 1836.

Now will you allow me to ask you about repairs; do you repair them by contract, or is it done by overseers engaging the men themselves?—It is not done by contract, that is, as far as entering into a contract for keeping such portion in repair, but everything is done that possibly can be done by task-work. The whole of the metal is prepared in that way. The work by day is not more than one-third of the expenditure in repairs.

In no part of it do you contract for the repairs per mile?—None.

Have you ever tried that system?—I have.

Have you found that succeed?—I have found it a source of continued litigation, always involving the trust in some dispute with the contractors, who must make a profit.

The rule is, the smallest quantity of work for the largest payment.—Yes.

Extract from Mr. William Cubit, C.E., Evidence, Sessions 1839.

How have the contracts upon the South Eastern answered to your esti-

mates?—As far as we have gone, I have put the prices to the work we have let out. I have a great aversion to putting out what are called lumping-sum contracts. I specify the work to be done in the district, and let them out; they are paid for by measurement, working under contract to do a certain quantity at those prices.

Extract from Mr. William Cubit, C.E., Evidence, Sessions 1846.

How would you propose to improve the permanent way?—By a good thickness of ballasting, and keeping the road in good order. There are many roads which are good if they were kept in good order, they are intrinsically good materials, and good workmanship, but from the want of being kept in good order, they may be very bad and very unsafe.

The great majority of accidents you think are owing to the want of sufficient care on the part of railway-companies in keeping the line in the best order?—Yes: making it in a slovenly way in the first instance for economy's sake; they will get chairs as light as they can, and as cheap as they can. Then the system of road-making. The permanent way is done by the most incompetent workmen, men of the least mechanical experience that can be conceived, they are but a grade above the commonest labourer. Then the contractor contracts for making the line by piece-work, at a very low price per yard, which is not the best way to obtain sound work. Now all this is the work upon which the safety of the public mainly depends, and that is not the way to obtain the thing done in the best possible manner.

* * Many of the above remarks will apply equally to Roads as well as Railways. R. B.

NO. XII.

TOLLS PAID FOR THE DIFFERENT CARRIAGES PASSING ON TURNPIKE-ROADS.

In making out a scale of tolls to be paid for the different carriages travelling on Turnpike-Roads, these two things require to be carefully noticed:—First, the damage done to the road by the carriage passing over it; and secondly, the means which the owners may be supposed to have, of paying for their portion of damage. Admitting that tolls ought to be levied on these principles, I will endeavour to notice such of the principal carriages now employed, as do not pay a toll equal to the damage the roads sustain by their use, and also advert to others which pay rather more than their proper toll.

It may be stated as a general rule, that the wear of the materials on all roads chiefly depends on the goodness of the materials themselves, the weather, and the weights passing over the road by properly or improperly-shaped wheels. Now it is evident that as Road-Trustees have not always the means of purchasing the best, and what would generally in the end prove the cheapest material; and as very few roads have a sufficient thickness of it fully able to resist the effects of destructive traffic; and as the weather is at all times uncertain, it appears necessary that greater attention be paid to the shape

of the wheels of the different carriages travelling on roads, than what has been previously done, since we shall never have good roads generally over the kingdom, until the care of the legislature is directed as much to the *adoption of wheels and carriages to the roads*, as to the roads themselves. It is on taking this view of the subject, that I would recommend to particular notice the proposed New Scale of Tolls, elsewhere alluded to, relating to the widths and shapes of wheels for carts and waggon. This scale, varied in some little matters to suit the local circumstances of each Trust, ought to be introduced either in the General Turnpike Act, or all the new local acts.

I have before hinted that the wear of road-materials depends, in a great measure, upon the weights conveyed on roads, and particularly when any narrow or improperly-shaped broad wheels are used—the damage done to the materials increasing from the lowest weights to the highest in a rapidly increasing ratio; and that the wearing of road materials, by using light or even heavy pressure with properly-shaped broad wheels, bears no proportion to that done by the heavy weights with narrow or improperly-shaped broad wheels, although the sum of weights passed over a road might be equal. Therefore, wherever the materials of roads are bad, and at a great cost, whether on turnpike-roads or highways, it is more and more important that all reasonable ingenuity should be exercised, so to construct the table of tolls, as that carriages of light pressure and properly-shaped broad wheels be encouraged. Had these principles been acted upon in the Turnpike Acts passed within the last thirty years, many of the roads would not have been in their present foul condition, neither would the debts have been so large, which, together with the falling off of revenue by the introduction of railways, almost prevents the possibility of any further improvements.

To show that it is not the narrow wheels alone that does the greatest injury to roads, I need only point out the little damage done by gigs and chaises drawn by one or two horses, as compared with the heavy weights of stage-coaches and other heavy weights on narrow wheels; and that if gigs and chaises were charged a toll in exact proportion to their wear of the roads, it would amount to considerably less than they pay at present. But it appears only reasonable that the owners of these light and quick-travelling carriages should pay rather more than a remunerating toll, in order that the roads be kept in good repair; for certainly no sort of conveyance feels the effects of bad roads more than these kind of vehicles. On the other hand, it is the heavy coaches, and carts with an intense pressure on a narrow surface of tire, that do the greatest injury to the materials, which is generally by no means compensated by their present tolls paid on many roads. I can say little in favour of other heavy traffic with the *mere resemblance* to a broad wheel, and consequently passing on the roads at a greatly diminished toll, but are in fact no better than the narrow wheels, and therefore ought to be charged at a similar rate. I would also observe, that since the opening of railways nearly the whole of the posting has left the roads, and which, as the greater part of it passed during the summer-months, did little injury; hence the necessity of more strictly looking after every kind of traffic now in use, in order to charge each of them such a rate of toll as shall correspond to the damage sustained by their wear of road-materials.

Where the traffic passing on roads is principally coal, and from the whole of it being sold by weight, the quantity therefore being known to the persons conveying it, there could be few mistakes, and no necessity for weighing. The weight of the other traffic might easily be ascertained; indeed a moderately correct estimate might be formed by any experienced toll-

collector, without being at the trouble of weighing. I mention these facts, by way of removing an objection to this scheme of charging toll by weight, which will naturally arise in the minds of persons who are not aware of the favourable circumstances under which many roads are placed, for effecting an object which is as necessary for the preservation of the roads themselves, as it is indispensable to a due meting out of justice to all parties; for in charging the toll solely by weight, the owners of the lighter traffic are not called upon to pay a greater amount of toll than would remunerate for the injury which the road sustains by their passing over it, as well as to place a corresponding increase upon the heavier traffic, which is also in general the most able to pay.

No. XIII.

TURNPIKE-ROAD LEGISLATION.

I have had my attention drawn to a Bill brought before Parliament, for the renewal of a Turnpike-Trust in Yorkshire, during the Session 1856, and was greatly surprised to find how few good clauses appeared in it. From my knowledge of the wants of this trust, both from having long surveyed an adjoining road, where much of the traffic passing over the line of road comes from that trust, and also from having long perceived that the road was nearly always in a bad state of repair, arising as much from the destructive nature of the Wheels of the heavy Carriages passing over it as from the general mismanagement of those who survey it, I was induced carefully to examine the different Clauses in the new Bill alluded to, with a view of noting its defects, and respectfully suggesting to the proper authorities the propriety of altering three or four of those already inserted, as well as introducing twelve others, which past experience had proved indispensable.

In the first instance, nearly all the Local Acts for the twenty-one different trusts round Leeds were carefully examined, in order to ascertain how far they would supply such Clauses as were worthy of being adopted; I was, however, greatly disappointed; and therefore made a summary of the twelve additional Clauses* it was felt desirable to see introduced into the proposed amended Bill, with a view to see how far they had been anticipated in the Acts of the roads round Leeds, and found the result of my examination as follows:—The Leeds and Wakefield Road Act, although it was obtained thirty-five years ago, has decidedly more good enactments in it than any other of the 300 Road Acts which I have seen; nevertheless there were but four out of the twelve proposed Clauses in that Act, whilst three or four of the other Acts for Trusts have only two of them. It is to be regretted that many of the other Acts do not contain one of the model Clauses. Indeed so little attention has hitherto been paid to the introduction of useful Clauses into the Local Acts for the Trusts leading from Leeds, that the Leeds and Halifax, Leeds and Otley, Leeds and Harrogate, Leeds and Roundhay, and many other Roads, do not contain one of them.

* The printed document, with all the clauses in full, may be obtained on remitting three postage-stamps to Mr. R. Bayldon.

I obtained from the Queen's printers every Turnpike-Road Act which had passed during the last six years, confidently hoping to find, in some shape or other, all the Clauses which I felt were necessary to make what might be considered (with all due respect to others) a model Bill, or rather twelve *additional* Clauses, all of which might, with benefit to the Funds and Finances of other trusts and the public at large, be safely inserted in subsequent Acts. Finding that the Acts passed during the period alluded to, did not supply what was wanted, those passed for the previous ten years were also obtained; and, having carefully examined (once, twice, and many of them three times over) each Clause of every one of the 270 Turnpike-Road Acts passed during the last sixteen years, as well as upwards of thirty other Acts passed previously, I was even then dissatisfied, and, in consequence was induced to alter many of the clauses, before they could be adopted, as well as to make several new ones myself. Making no pretension to a knowledge of drawing them out in that correct form becoming the importance of the subject, I ventured to lay them before Mr. EDWIN EDDISON, Solicitor of Leeds, (an active Trustee of Roads,) who, together with his legal knowledge, and from being also a practical agriculturist, was better able to judge of the utility of my model Clauses. This gentleman generously responded to my wishes at once, and most of his proposed alterations were such decided improvements, that I adopted the greater part of them. I trust that Mr. EDDISON will not be displeased at this mention of the obligation he has conferred on the public by giving a helping hand to my humble efforts at Turnpike-Road Legislation. When it is added, that these twelve Clauses have been also carefully corrected by Mr. TIDD PRATT, the gentleman who it has always been understood drew up most of the Clauses in the original General Turnpike-Acts, it is hoped that they may now respectfully, yet safely, be recommended to the candid consideration of all parties interested in the repairs and finances of roads, both Turnpikes and Highways.

The great point of charging Narrow Wheels double the Toll of properly-shaped four-and-a-half inch flat Wheels, and all broad Wheels, when not running flat, the same toll as narrow Wheels, has been fully carried out on the Leeds and Wakefield Trust during the last fourteen years, whilst, for the three years previous to its adoption, the repairs took the whole of the tolls raised from the traffic, leaving nothing for the payment of Interest or repayment of the debt of £15,000. The Road was, moreover, always in a very indifferent state of repair, arising from the destructive effect of heavy traffic on narrow Wheels. But ever since the new Scale of Tolls, encouraging flat broad wheels, has come into operation, the road has been good, requiring only about one-third of the tolls to keep it in repair, whilst the remainder of the funds has been expended in paying the Interest and the Debt of £15,000, which is now extinguished, leaving the public in future either to pass along that road at a greatly reduced rate of toll, or allowing the Trustees to expend the surplus in improving the road where necessary.

Surely the knowledge of these facts will fully justify me in seizing every opportunity of laying them before the public, in order that the system which has produced such happy results may be fully explained and followed out on other turnpike trusts, where, from the general state of repairs of the roads themselves, as well as their financial position and prospects, an alteration of their present defective management becomes essentially necessary.

For although it be true that Turnpike-Road Acts are generally limited to twenty-one years, after which the Commissioners must again apply to Par-

liament for a renewal of their trust, excepting where the finances are in such a state as to be deemed satisfactory to the Secretary of State for the Home Department, when the acts in that case are allowed to continue in force from year to year, by an Act annually passed for that purpose;—yet, should any of the trusts be not paying off their debts quite so expeditiously as the Government should think proper, notice is generally given to the Clerks of the Trusts, that, if two-thirds of the bondholders cannot amicably agree amongst themselves to lower the interest of the debt from five to four, three, or even two-and-a-half per cent., and in some cases, to even less amount than this, the trustees of the road must apply to Parliament, and have their position investigated, and the interest so lowered, as (to make use of the words of some of the preliminary reports) to cause the debt to be rapidly extinguished. And should these debts be dealt with in future years with that severe stringency which has been adopted with nearly all turnpike-road acts passed during the last six years, there can be little doubt, that, within twenty or thirty years, all the turnpike-road debts in the kingdom, although now amounting to near £6,000,000, will be discharged, in a many cases in such a manner as I find it difficult to designate, so fully convinced am I of its dishonesty. It is not paying off the debts in full, but virtually repudiating them by reducing the interest to four, three, and two-and-a-half per cent., and in many cases even less than these sums are forced upon the acceptance of all Mortgagees.

No. XIV.

TWELVE CLAUSES PROPOSED TO BE INTRODUCED IN ALL TURNPIKE-ROAD ACTS, IN ADDITION TO THOSE USUALLY INSERTED.

Revised by Edwin Eddison, Esq., Solicitor, Leeds, and J. and W. Tidd Pratt, Esqs., London; after being selected by Richard Bayldon, Road-Surveyor, Methley, near Wakefield; and are now respectfully presented by him to Parliamentary Agents, Clerks Commissioners, and other Parties interested in the Management of Turnpike-Roads and Highways.

I.—TOLLS.

For every Horse, Mule, or other Beast drawing any Coach, Stage-Coach, Omnibus, Van, Caravan, Barouche, Chariot, Chaise, Curricie, Phaeton, Car, Gig, Hearse, Break, Taxed-Cart, or other Carriage, or Cart, used for the conveyance of persons, or light goods or articles, the sum of Sixpence. For every Horse, Mule, or other Beast of burden (except an Ass) drawing any Waggon, Wain, Cart, Van, Caravan, Dray, Timber-carriage, or other Carriage of a like description, by whatsoever name called or known, having the fellies of the wheels thereof of the breadth of four-and-a-half inches, or upwards, at the tire-bottoms or soles thereof, and having perfectly flat tire, rolling on a flat surface, and the whole breadth thereof, when rolling on a flat surface, bearing equally thereon, and the nails of such wheels countersunk, and the heads not projecting beyond the surface of the tire, the sum of Fourpence in Summer, and Sixpence in Winter. And, for all such as last aforesaid, having the fellies of the wheels thereof of

less breadth than four-inches-and-a-half at the tire-bottoms or soles thereof, the sum of Eightpence in Summer, and One Shilling in Winter.

For every Waggon, Wain, Cart, or other like Carriage, with upright cylindrical wheels, six inches in breadth, that is to say, the wheels rolling on a flat surface—the nails countersunk—the wheels cylindrical, or of the same diameter in the inside next the carriage as on the outside—the opposite ends of the axletree horizontal, and in one straight line—the lower part of the wheels, when resting on the ground, being at the same distance from each other as the upper part of the wheels, the sum of Threepence shall be paid for each horse drawing, and shall not be liable to any tolls for overweight.

For every Coach, Carriage, Cart, Wain, Dray, or other Carriage whatsoever, moved, drawn, or propelled by machinery or steam-power, or any other power than by beasts of draught, the sum of One Shilling for each wheel, if not more in width at the tire than four-inches-and-a-half; and the sum of Sixpence a wheel if six inches in width or upwards.

For every Horse, Mule, or other Beast (except an Ass), not drawing, laden or unladen, the sum of Three-half-pence.

For every Ass, not drawing, the sum of One Penny.

For every drove of Oxen, Cows, Calves, Swine, Sheep, or Lambs, the sum of Tenpence per score; and so in proportion for any greater or less number.

II.—TOLLS ON ASSES WHEN DRAWING, TO BE ONE-THIRD OF THE TOLLS ON HORSES.

No greater Toll shall be demanded or taken for or in respect of any Ass or Asses drawing any Waggon, Wain, Cart, or other Carriage, than One-third the amount of Toll that would be payable by this Act for or in respect of any Horse, or the like number of any Horses, drawing the like description of Waggon, Wain, Cart, or Carriage.

III.—DEFINING THE TERMS “SUMMER” AND “WINTER.”

In the construction of this Act, the word “Summer” shall be taken to mean from the First day of May to the Thirty-first day of October, both inclusive; and the word “Winter” to mean from the first day of November to the Thirtieth day of April, both inclusive, in every year.

IV.—AN ADDITIONAL HALF-TOLL TO BE PAID FOR EVERY FRESH LOADING IN CERTAIN CASES.

That for every Horse, Mule, or other Beast whatsoever, drawing any Waggon, Wain, Cart, or other like Carriage, passing more than once on the same day through any such Toll-gate, Toll-bar, or Chain as aforesaid, with a fresh load, exceeding three hundred-weight, One-Half Toll (together with such whole further charges, if any, for overweight, as shall be payable by virtue of this Act,) shall be paid for every such subsequent passing, as often as the same shall happen; provided always, that no more tolls than shall be equal to three full tolls in any one day, over and above the charges for overweight, shall be payable by virtue of the provision lastly hereinbefore made in respect of the same Horse, Mule, or other Beast drawing any such laden Carriage as lastly hereinbefore mentioned; and also that such Half-Toll shall not be payable in respect of the Horses, Mules, or other Beasts drawing any Carriage returning, loaded only with empty casks or packages,

and in respect of which toll shall have been previously paid, whether on the same day or not.

V.—TOLLS FOR TIMBER AND OTHER CARRIAGES ABOVE TEN FEET WIDE BETWEEN THE AXLES, TO BE ONE-HALF MORE THAN OTHER CARRIAGES.

And whereas Timber and other Carriages are sometimes constructed of such a width between the axletrees as to make it impossible to weigh the same by means of the ordinary weighing-machine : Be it enacted, That for every Horse or other Beast drawing any Caravan, Dray, or other Carriage, so constructed as that the distance between the axletrees shall be more than ten feet, there shall be paid at each of the said Toll-gates, Toll-bars, and Chains upon or across the said road, or on the sides thereof, in addition to the ordinary toll otherwise chargeable in respect of such Horse or other Beast, One-Half more of the amount of such ordinary toll.

VI.—MANURE, AGRICULTURAL PRODUCE, AND ROAD-MATERIALS, NOT TO BE EXEMPT EXCEPT WITH FLAT WHEELS OF FOUR-AND-A-HALF INCH TIRE OR UPWARDS.

That no exemption from payment of tolls shall be allowed at any Toll-gate, Toll-bar, or Chain as aforesaid, in respect of any Horse or Beast drawing any Waggon, Wain, Cart, or other Carriage, laden with, or employed in carrying or conveying, or returning empty after having been employed in only carrying or conveying, any dung, soil, compost, lime, or manure, to be solely used for improving or manuring lands (and not for the purpose of trade), or with Sough or Draining Tiles, or with Ploughs, Harrows, or Implements of Husbandry, or Hay, Straw, or Fodder for Cattle, or Corn in the Straw, Potatoes, or any agricultural produce whatsoever (not sold or for sale), or any materials for the making or repairing of roads, or for building, rebuilding, or repairing any bridge, except such Waggon, Wain, Cart, or other Carriage shall have the fellyes of the wheels thereof of the breadth of four-and-a-half inches or upwards, at the tire-bottoms or soles thereof, and having perfectly flat tires, rolling on a flat surface; and the whole breadth thereof, when rolling on a flat surface, bearing equally thereon, and the nails of such wheels countersunk, and the heads not projecting beyond the surface of the tire.

VII.—CARRIAGES WITH WHEELS NOT HAVING A FLAT SURFACE, TO BE TREATED AS CARRIAGES WITH NARROW WHEELS.

That all wheels of Carriages, whereof the tire or sole shall be otherwise than on a perfectly flat or level surface throughout the whole breadth of four-and-a-half inches, or upwards, bearing equally on such flat or level surface—with the nails entirely countersunk and not projecting beyond the surface of the tire; or if the interior diameter of the wheel of any Waggon, Wain, Cart, or other Carriage, shall vary from the exterior diameter of such wheel more than one-twelfth part of the breadth of the tire-sole or bottom of the felly thereof, shall pay the same toll, and be liable to be weighed, and to the same tolls and penalties for overweight, and shall be subject to the same regulations and restrictions, with respect to weights, as any Waggon, Wain, Cart, or other Carriage, having the fellyes of the wheels thereof of a less breadth than four-and-a-half inches at the bottoms or soles thereof, is, or may be by law subject and liable to.

VIII.—WEIGHTS OF CARTS, OR CARRIAGES, DRAWN BY NOT MORE THAN ONE HORSE, LIMITED.

The weights to be allowed to Carts, or other Carriages, drawn by one Horse, Beast, or Animal, shall never exceed the weights following, that is to say, as to Carts or Carriages, if having the fellies of the wheels thereof of the breadth of four-and-a-half inches or upwards at the tire-bottoms or soles thereof, one ton and fifteen hundred-weight for each such Carriage, and the lading thereof, in Summer; and one ton and ten hundred-weight in Winter.

And as to Carts or Carriages, if having the fellies of the wheels thereof of less breadth than four-inches and-a-half at the bottoms or soles thereof, one ton and ten hundred-weight for each such Carriage, and the lading thereof, in Summer, and one ton and five hundred-weight in Winter.

IX.—ADDITIONAL TOLLS FOR OVER-WEIGHT.

That all Carts or other Carriages passing along the said Road, drawn by only one Horse, Beast, or Animal, shall be and may be weighed at any Weighing-machine on the said Road; and the said Trustees may demand and take at the said several Toll-gates, Toll-bars, and Chains, the sum of One Penny per hundred-weight for every hundred-weight above the weights specified, in addition to the original and ordinary Toll.

X.—TOLLS FOR OVER-WEIGHT ON CARRIAGES DRAWN BY TWO OR MORE HORSES.

Whereas it is expedient to reduce the Tolls chargeable by different Acts for over-weight in respect of Waggon, Wains, Carts, and other like Carriages, drawn by two or more Horses: Be it enacted, That, notwithstanding any enactments to the contrary, the following charges only shall be made, for every Waggon, Wain, Cart, or other like Carriages, which, together with their loading shall exceed the weights specified in any Act, namely, When not exceeding five hundred-weight, the sum of One Penny for each hundred-weight:—When exceeding five hundred-weight and not exceeding ten hundred-weight, the sum of Two-pence for each hundred-weight:—When exceeding ten hundred-weight and not exceeding fifteen hundred-weight, the sum of Three-pence for each hundred-weight:—When exceeding fifteen hundred-weight and not exceeding twenty hundred-weight, the sum of Four-pence for each hundred-weight:—When exceeding twenty hundred-weight and not exceeding twenty-five hundred-weight, the sum of Six-pence for each hundred-weight:—When exceeding twenty-five hundred-weight and not exceeding thirty hundred-weight, the sum of Nine-pence for each hundred-weight:—When exceeding thirty hundred-weight, the sum of One Shilling for each hundred-weight.

XI.—ENTRANCE TO FIELDS TO BE MADE WITH HARD MATERIALS.

That in all cases where any entrance shall be, or be made, from the said Road to any Land or to any Buildings, such entrance shall be properly covered with stone, gravel, or other hard materials, and a proper plat, culvert, or drain made by or at the expense of the Owner or Occupier of such Land or Buildings, so that such Road may not be injured by the stoppage or running of such water, or by carriages or horses passing to or

from the same by such entrance ; and in case such Owner or Occupier shall neglect to make and cover with proper materials such entrance, or to make such culvert or drain, or to keep the same respectively in proper order, for the space of fourteen days after notice in writing (setting forth this provision) given to such Owner or Occupier, or left for him at his usual or last known place of abode, or if his place of abode be not known, then by letter sent by post directed as last aforesaid, and also posted upon such entrance by, or by the direction of, the Surveyor to the said Trustees, requiring such Owner or Occupier to make or repair the same, it shall be lawful for the said Trustees, or for their Surveyor, or any other person acting by or under their authority, to make and cover such entrance with stone, gravel, or other hard materials, and to make such plat, culvert, or drain, or to repair the same respectively (as the case may be) ; and the expenses thereof shall be reimbursed and paid to the said Trustees by such Owner or Occupier (as the case may be) ; and in case of non-payment of such expenses within ten days after the same shall have been demanded in writing by or on behalf of the said Trustees, then such expenses shall and may be recovered, together with the costs and charges attending such recovery, by distress and sale of the goods and chattels of such Owner or Occupier by warrant, in the same manner as any other penalty may be recovered under this or any General Turnpike Act, and which warrant of distress any one of Her Majesty's Justices of the Peace of the county in which the Road is situated, is hereby empowered and required to grant, on proof made before him, on oath, of such expense having been incurred, and of such notice having been given as aforesaid ; and the overplus (if any) shall be returned, on demand, to the person whose goods and chattels shall have been so distrained and sold.

XII.—IN CASE FENCE-WALLS ARE OUT OF REPAIR.

That if any Wall or Fence adjoining the said Road shall, from any neglect, be out of repair, or not of a sufficient height above the Road, and shall not be repaired within ten days after notice in writing as last aforesaid, it shall be lawful for the said Trustees to rebuild or repair the same, and to charge the costs and expenses thereof to the Occupier of the adjoining property ; and if such occupier shall neglect, or refuse, to pay the same costs and expenses to the said Surveyor, he shall make complaint before one of Her Majesty's Justices of the Peace, who shall thereupon proceed to summon such defaulter ; and if he fail to appear to such summons, or to show sufficient cause for the non-payment of such costs and expenses, it shall be lawful for such Justice, upon the evidence of one or more witnesses upon oath, to determine the amount of the costs and expenses of any such repair, and to cause the same to be levied, together with the cost of such complaint, information, and conviction, by distress and sale of the goods and chattels of such defaulter by warrant, as hereinbefore mentioned.

* * Where Turnpike-Roads have but little Interest to pay, or are entirely free from Mortgage-Debt, and where the largest portion of the traffic is of a light profitable kind, even on narrow wheels, doing little injury to the road, and having excellent materials for repairs at a moderate rate, a scale of tolls, of only one-half, and in some cases of only one-third, of the prices fixed upon in these Model Clauses, would prove amply sufficient to provide funds for repairing the road only ; at the same time it may be observed that the pro-

posed charges have been actually carried out on the Leeds and Wakefield Road during the last fourteen years, having had the desired effect of gradually driving off nearly all the narrow, as well as the improperly-shaped broad wheels, and bringing into operation the properly-shaped four-and-a-half or six inch flat wheels; thereby injuring the materials of the road far less than those formerly in use. The proposed scale, high as the prices may appear, may however be safely adopted on the greater part of the twenty-one turnpike-trusts round Leeds, as well as on other roads in manufacturing or other districts having heavy traffic on either narrow or improperly-shaped broad wheels, if it were only to place a penalty on these descriptions of destructive traffic, and to encourage the properly-shaped four-and-a-half-inch flat wheels; long experience having proved that it is only by placing a double toll on the destructive traffic, that properly-shaped flat wheels can be brought into general use.

"I have settled and do approve of these draft clauses, and I think great advantage would arise from their adoption.

"W. TIDD PRATT,
"Lincoln's Inn, 30th April, 1856."

No. XV.

HAND-MACHINE FOR SCRAPING ROADS.

The price paid for scraping the dirt off the roads under my care has run from 3s. 14d. to 12s. 6d. per mile in length, varying with the width of the road, and thickness of the dirt or snow to be scraped off. At these prices, an able-bodied, industrious workman can earn from 2s. 6d. to 3s. 6d. per day, varying with the state of the weather and the length of daylight. Knowing that water is a most destructive element to roads, my great object has always been to keep the surface of the road clear of both it and dirt as soon as possible, and also to remove every morning all the snow which may have fallen during the previous night.

After more than twenty years' experience, I find that, in every case, besides doing the work better and more expeditiously, the surface of the roads can be kept clear of dirt, water, and snow, by the hand-scraping machine, when performed by contract, at less than one-fourth of the expense that it can be done by the common hand-scraper, whether worked by day or by contract. Other parties state that four-fifths of the amount usually paid for scraping is saved. Allowing the correctness of my own data, and by referring to column 12 in the annexed Table, the total annual average amount of money saved in scraping alone will be at once seen to be very great, and far beyond what persons in general might suppose could be derived from such a source. Indeed, I have often asserted to numerous trustees of roads, that I had effected an annual saving of money alone to the trusts which I surveyed, far exceeding the amount of my salary as Surveyor, besides constantly having a much cleaner surface of road, than when the old and tedious mode of cleansing the road was adopted, quite irrespective of the great saving in the wear of road-materials, and consequent reduction of expenditure that is certain to ensue, by keeping, as soon as as possible, the surface of the road dry.

The items composing the accompanying Table have been taken from the books of the different roads, as annually presented to the trustees, and the confirmation which it gives to my long-formed views fully repays me for the trouble of drawing it out ; and I hope the results here presented will not be lost sight of by those Commissioners and Surveyors of Roads, as well as rate-payers, who may chance to peruse it, and that they will lead to the general use of the scraping-machines for cleansing all highways as well as turnpike-roads.

In order to give persons residing in the neighbourhood of Leeds an opportunity of testing the truth as to the amount of money that is stated to be saved by using the machine for scraping roads, it may be observed, that they are employed on the road from Leeds to Wakefield, where the following prices are generally given, viz., from the road opposite the Midland Railway Station in Hunslet-lane, adjoining the pavement in Leeds, to the top of Bell Hill, 6s. 3d. per mile is paid ; and from thence to the end of the turnpike-road adjoining the pavement of the town of Wakefield, only 5s. 2½d. per mile is allowed, when a good workman, in either case, under favourable circumstances, can earn 3s. 6d. per day.

The difference of price paid for these separate portions of road arises from that part adjoining Leeds, and passing through the populous district of Hunslet, being generally wider and having more traffic passing over it, and thus prevents the labourer from executing his work so quickly as on the length of road towards Wakefield.

Whatever objections some have made to the general use of the road-scraping machine for cleansing roads of their dirt, there can be none as regards the amount of remuneration which the labourer receives for their use, seeing that a good workman can earn from 3s. 6d. per day ; but when the common hand-scraper is used, a workman could not earn more than 7½d. per day, if paid at the same rate per mile as that paid for the machine, at the prices already stated, viz., from 5s. to 6s. per mile.

Some of the men, on first working the machine, where the surface of the road, from want of being previously in order, had become uneven, have grumbled at the hard labour attending its use, and were exceedingly urgent to be again allowed to work the old common hand-scraper ; but I always resisted, by urging that the use of the machine, generally speaking, tended to remove the grievance alluded to ; and, if not found sufficient, these uneven parts of the road should be carefully repaired and levelled by small broken materials, all of which should be well consolidated before the machine was again used, when the inconvenience would be entirely abolished.

It is economy to scrape roads far more often than what takes place, for by removing the water and dirt off the road, the appearance of ruts is prevented, and the horses drawing carts have not that tendency to follow in the same tract, as they always do when much dirt is permitted to continue long on the road, and allow ruts to be formed.

The most formidable objection, however, against the use of the machine, has been raised by persons who advocate the more general employment of manual labour in place of machinery, even when one man with a machine (as in this case) can do the work both cheaper and better than can be performed by four labourers. But since the savings that have arisen by this new mode have gone either towards the payment of debts, or making improvements, whereby the public have received a benefit far beyond the number of those who have sustained injury by having their labour displaced,—and since partial evil, for the sake of universal good, must often be submitted to,—I must, with every wish to see the condition of the working-

classes improved, for ever protest against the resumption of the old scraper ; indeed, I shall feel truly thankful if any effort of mine should lead to the general use of the machine, even if it were only within the Borough of Leeds ; for, finding by the survey which I undertook for the Council of the Borough in 1843, that there are 100 miles of turnpike-roads and highways (exclusive of about eighteen miles of paved streets), and that the cost of scraping under my care, when using the machine, has been upon an average only of £6 3s. 4d. per mile per year, thus effecting a saving of £18 10s. per mile per year, I must needs be anxious for its universal adoption. Again, assuming that the 100 miles would cost upon the average by the machine only £3 per mile per year, or say a total of £300 per year, and (supposing the machine to do the work of four men), a saving of £9 per mile per year, or a total of £900 for the 100 miles per year, would be effected.

How beneficially, therefore, may this saving be applied in making flagged footpaths in place of those of mud and dirt, which the poor, as well as the rich, have often to wade through ; and by applying a portion of it in widening out other flagged footpaths, which in populous districts are far too narrow for the numerous persons passing over them, how much the benefit would be extended, whilst on other roads, much used by the public, and which have at present only one indifferent footpath, another on the opposite side of the road (particularly where there is ample width) might be put down, thus yielding an additional inducement for persons residing within the most densely-populated districts of this Borough, when time and weather would permit, to take excursions, and breathe the purer air of its more rural districts. Looking, therefore, at this matter as a sanitary question alone, and putting aside its economical view, the general use of the machine greatly merits to be encouraged. Indeed, its invariable adoption would tend to keep the roads dry, smooth, and far more clear of dirt and mud than the common implement, and consequently abridge the expense of repairs,—a saving of expenditure of no trifling amount,—not to say more on the increased comfort to the traffic, as well as to the inhabitants adjoining the roads. Indeed, what with filthy roads and general want of good wide flagged causeways, our population are too often obliged to stop at home, or else wade through the mud, and be almost lost in dirt. It is enough to sit quietly down, and remain contented with these inconveniences when no remedy can be found. But now that an easy one has been pointed out (and which requires no Act of Parliament to enforce it), and as good Yorkshire flag-stones can be obtained at a reasonable rate, from being so near at hand, it is therefore hoped that those parties in authority, even if they hold the opinion that the general use of machinery interferes too much with manual labour, will, in this case at least, seeing the good that must arise, relax their objections, as by doing so the general welfare of the workman, even more than his richer neighbour, would be advanced.

The Machine can be used with decided advantage on all Highways, as well as turnpike-roads. Generally speaking, the expense of scraping the dirt off the roads under my care, exclusive of snow-storms, by the Machine, averages from 5s. to 6s. per mile, except on a fall of snow ; but it will cost five times that amount when the common Hand-Scraper is used ; or say when a labourer, working the new machine by contract, can earn 3s. 6d. per day, the same amount of labour performed with the common hand-scraper will cost 17s. 6d. ; thus effecting a saving of 14s. per day in labour alone, during every day the machine is at work. The implements can be delivered in Leeds for £1 10s. and £2 for Highways ; or £3 10s. each for Turnpike-Roads ; so that its entire expense is saved in workmen's wages where the machine has been used only a few days.

Table, showing an Account of Manual Labour by Day and by Contract performed on the Turnpike-Roads between Wakefield and Barnsley, Leeds and Wakefield, Leeds and Birstal, and Leeds and Oley, between the Years 1828 and 1848, while those Roads were placed under R. Bayndon's Management.

1	2	3	TOTAL ANNUAL AVERAGE AMOUNT PAID.										TOTAL ANNUAL AVERAGE.																					
			4					5					6					7					Road Scraping by Contract with Machine.						Amount of saving to the Trusts from the Roads having been scraped by the Machine, as compared with the usual modes					
			For Breaking Materials, Dirt Heaping, Road Sides Cleaning &c., by Task Work.		For Contract Work. (Nos. 4 & 11.)			For Day Labour.		For Contract and Day Labour. (Nos. 5 & 6.)			No. of Miles Scraped.		No. of times whole line scraped over.		Amount paid per mile.		Amount paid for whole line.		No. of times whole line scraped over.		Amount paid per mile.		Amount paid for whole line.		No. of times whole line scraped over.		Amount paid per mile.		Amount paid for whole line.			
			£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.	Mls	£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.	
Turnpike Roads.	Mls.	Years.	14 years: viz. from 1828 to 1841, both inclusive	200	0	10	229	18	0	192	8	0	422	6	0	73½	7½	8	2	29	17	2	89	11	6	8	19	2						
From Wakefield to Barnsley	10	9 years: viz. from 1840 to 1848, both inclusive	222	13	2½	270	14	9½	237	16	1	508	10	10½	189½	23	5	1	48	1	7	144	4	9	17	9	8							
From Leeds to Wakefield ..	8½	9 years: viz. from 1840 to 1848, both inclusive	203	3	9½	236	19	5½	198	7	7½	435	7	1	160¾	23	4	2½	33	15	8	101	7	0	14	9	7							
From Leeds to Birstal via Morley	7	2 years, 1847 and 1848	307	1	8½	415	17	7½	464	2	9½	880	6	5	359½	34½	6	0½	108	15	11	326	7	9	31	1	8							
From Leeds to Ouley	10½		932	19	6½	1153	9	10½	1092	14	6	2246	4	4½					220	10	4	661	11	0	18	10	0							
	35½																																	

The circumstance of working the Road-Scraping Machine in every case by Contract, instead of by Day-Labour, has enabled the total annual average amount paid for Day-Labour, as given in col. 6, to be less than the sum paid annually for Contract work; it being exceedingly desirable that Road-work should be performed by measure, and not by Day-Labour; the latter being at all times exceedingly expensive, but more particularly during the short days of Winter; and it is probable that not any other of the eighteen different Turnpike-Roads within the Borough of Leeds, except the three enumerated in the above Table, can show that more than one moiety of the whole amount expended in Manual Labour for repairing their Roads, is paid for Task-work alone, and which the Scraping-Machine has enabled me to effect, securing at the same time an annual saving of £661 11s., as per col. 12, which is more than 25 per cent. upon the whole amount paid for all kinds of Manual Labour, as per col. 7.

No. XVI.

RULES TO BE OBSERVED BY ALL WORKMEN EMPLOYED ON THE ROADS UNDER R. BAYLDON'S MANAGEMENT.

RULE 1. *Working Hours.*—Each labourer, when working by the day, to commence his work on the road at half-past six o'clock in the morning, and continue until half-past five o'clock in the evening, when daylight will admit; and during the winter months to commence and continue working from light to dark,—half-an-hour being allowed for breakfast, only when the labourer commences his work at half-past six o'clock in the morning, and one hour to be allowed for dinner at twelve o'clock at noon, during all seasons of the year.

2. *Absence from Work.*—No workmen to absent themselves from the road during working-hours (sickness excepted), without leave from the Surveyor. But they are at liberty to engage in farming-work during the hay, turnip, or harvest seasons, provided they give the Surveyor notice, and their services are not required on the road.

3. *Notice of quitting Service.*—No workman shall be allowed to leave the Surveyor's employment without giving one month's notice, nor shall any workman be discharged (except for a great offence), without receiving a like notice, unless by mutual consent.

4. *New Work.*—No new work to be commenced, nor men nor horses employed, without directions; except scraping the road, which may be proceeded with by contract immediately when necessary.

5. *Work, how to be performed.*—All work will be let by contract as far as practicable, except covering the road with materials.

6. *Road-Scrapings, &c.*—Three-halfpence to three-pence per mark, of 35 yards in length, will be given for scraping the dirt off the road with the scraping-machines, eight or nine yards wide, and from one penny to three-pence per mark (varying with the number of scrapings) will be allowed for placing the same decently into heaps by the sides. The scrapings to commence when there is half-an-inch of puddle on the surface, but which must not be heaped without orders from the foreman. The materials are to be broken by contract, and reduced as much as possible to a cubical form, and such a size, so that every stone shall pass through a 2½ inch ring in every direction.

7. *Working-Tools.*—New working-tools are not to be purchased, or ordered to be made, without leave from the Surveyor; neither are those in actual use to be repaired without such leave, except they are so much out of order as to prevent the work being done in a speedy and proper manner; and the foreman of the district must caution both tradesmen and labourers on this point, as the Surveyor will not be answerable for debts contracted either in making or repairing without his orders; neither are the tools or implements to be lent or carelessly thrown about, for should any be missing at the time of taking stock in January each year, the foreman will be required to make good the deficiency.

8. *List of Tools and Number of Men to be kept by District Men.*—Each foreman to keep a correct account of all the men, horses, carts, &c., employed, and all road-materials conveyed by contract or otherwise, stating by whom broken; as also a list of all tools and implements repaired on their districts; and carefully examine all tradesmen's accounts before forwarding them to the Surveyor.

9. *Tools of Contract Men.*—When a labourer is on contract work, he shall provide and keep in repair his own tools.

10. *No Perquisites to be taken.*—No district man, or other labourer, whether working by day or by contract, shall receive any fee, emolument, or any kind of remuneration whatever, except his regular wages.

11. *Payment of Wages.*—The labourers to be paid their wages every Friday.

12. *Holidays.*—Christmas-days and Good Fridays to be allowed as holidays.

No. 3. TOLL COLLECTOR'S WEEKLY RETURN ON THE LEEDS AND WAKEFIELD TURNPIKE-ROAD.

No. XVIII.

No. 1.

SPECIFICATION OF MONEY.			
	£.	s.	d.
Cheques			
Bank-Notes	5	0	0
Gold	7	0	0
Silver.....	0	13	6
Copper	0	0	3
Total Money sent	12	13	9
Collector's Wages	1	1	0
Accounts paid ...	7	5	3
Total.....£	21	0	0

HUNSLET BAR.

PAID to Mr. RICHARD BAYLDON the following amount, as specified in No. 1, being on account of Tolls collected at the above Bar, as specified in No. 2, for the Week ending Sunday, February 22nd, 1857; and

	£.	s.	d.
During the Month of February ..	21	0	0
And also in the Month of.....			
	£ 21	0	0

By GEORGE FAWCETT, Collector.

If the Collector remit money on account of more than one month at the same time, he must state the amount for each month separately. Any Bills paid by the Collector on account of the above Road—the same being first properly receipted—will be received as Cash.

No. 2.

Week Day.	Mo. Day.	Gross Amount.		
		£.	s.	d.
Monday ...	16	2	4	11
Tuesday ...	17	2	14	10
Wednesday	18	2	16	11
Thursday...	19	2	15	5
Friday	20	2	15	2
Saturday ...	21	2	12	8
Sunday ...	22	0	10	1
		£ 16	10	0
	Credit...	4	10	0
		£ 21	0	0

No. XIX.

Width and Depths of Materials in the first Mile on the Leeds and Wakefield Turnpike-Road.

No of Mrks	LOCALITY.	Width of Mate- rials. feet	Depth of hard Materials in centre of road taken every 35 yards, or at 50 places in a mile.			
			1841	1855	1856	1857
1	Opposite Railway Station	31	9½	4¾	5¼	5
2	Harrison's Warehouse	21	7	5	3½	4½
3	North of Grey Walk	24	8½	3½	2¼	3
4	Ditto ditto	22	7	1½	3¼	4
5	Grey Walk	33	3½	0½	1¼	2½
6	South End of ditto	38	9	5	3½	1¾
7	Boy and Barrel Inn	37	9½	4	3½	1
8	South of ditto	24	11	4¾	3½	3½
9	Mr. Scattergood's Garden Corner ..	39	11½	5½	5¼	3¾
10	Black Bull Inn	42	8	6	5½	3¼
11	Booth's Butcher's Shop	37	8	5	5½	3
12	Rathmell's ditto	37	4	4¾	5¼	1½
13	South of ditto	41	4	5	2½	1½
14	Norfolk's Flour Shop	39	5½	4	1¾	3½
15	Leathley Lane	32	2½	5	4	3¼
16	Victoria Street	35	4	4¾	1½	2¼
17	Academy Street	36	6	4½	4¼	3¼
18	North of Mulberry-Tree Stables ..	32	2½	6	5	3½
19	Mulberry-Tree Inn	34	6	5	4	3
20	Watson's Flour Shop	33	6	5½	5¼	2½
21	South of ditto	30	7	4½	2¾	2
22	North of Accommodation Road ..	34	5	3½	2¼	2½
23	Accommodation Road	39	7	4½	5½	2½
24	Royal George Inn	33	8	5½	5	3½
25	Kirby's Grocer's Shop	28	8½	5½	5	5½
26	South of ditto	37	9	6¼	6	3
27	Mr. Donisthorp's Yard	30	8¾	6	5½	4
28	Mr. Wilkinson's House	32	4½	4½	4½	3½
29	South of ditto	34	5¾	4¾	5½	5½
30	Larchfield House Garden Wall ..	37	7	4¾	3	4
31	Ditto Corner	32	7	4¾	5	4
32	Moscow Place	31	7	4½	2½	3½
33	South of ditto	28	4½	5½	4	4½
34	Mr. Joshua Bower's House	35	12	5	5½	3½
35	Prince Albert Inn	40	11	4	5¾	3
36	South of ditto	38	7½	2	3	2
37	Swithenbank, Wire-Worker	24	8	5½	2½	3
38	North of Hunslet Post Office	39	4½	2¾	4	3
39	Rogerson's Grocer's Shop	26	6½	1	2½	1½
40	James Brown, Butter Factor	23	12	2¾	5¼	4
41	Swan with Two Necks	25	8	4	5¾	3
42	Simpson's Grocer's Shop	30	2½	3½	6¼	5
43	Near Grey Mare Inn	32	8	5	5	6
44	Hunslet Baptist Chapel	33	9½	4	5½	5
45	Wesley Street	26	12	6¼	6¼	5
46	Bower's Glue Works	22	8½	6	6½	5
47	Providence Row	20	8	4	6½	6
48	Stockdale's Shop	20	7	5¼	6½	5
49	Rider's Cooper's Shop	20	5½	2½	4	4¾
50	Mexbro's Arms Inn	18	5½	3	2½	4½
		1566	357½	220¼	214	175¾
		F. 1N.				
Average Width & Depth of Materials		31 3	7	4½	4½	3½

No. XX.

TOLLS, REPAIRS, &c., ON LEEDS AND WAKEFIELD TURNPIKE-ROAD.

PARTICULARS as to the Amount of Tolls received; Cost of Repairs, and other Payments; Decrease of Debts; Interest of Debt; No. of Tons of Materials used; Average depth of hard Materials in the centre of the Road; No. of Miles of Road Scraped, and Cost; Increase of Debts; and Net Amount of Debts: during each year, from 1837 to 1856, inclusive.

1	2	3	4	5	6	7	8	9		10	11
Years ending Dec. 31st.	Tolls received.	Cost of Repairs.	Other Payments.	Decrease of Debts.	Interest of Debt.	Materials used in Repairs.	Average depth of hard Materials in centre of Road.	ROAD SCRAPING.		Increase of Debts.	Net Amount of Debts.
	£.	£.	£.	£.	£.	Tons.	Inches.	Miles.	£.	£.	£.
1837	6223	4811	421	...	554	...	...	...	...	556	12989
1838	5765	5103	632	...	529	...	...	...	...	425	13414
1839	5780	5726	390	...	591	...	...	...	...	1544	14958
1840	5068	5480	305	...	710	3014	5	545	138	212	15170
1841	3877	2628	305	730	776	2687	4½	262	66	...	14440
1842	2460	1499	367	152	680	1104	3¾	128	31	...	14288
1843	2384	1112	413	546	675	1687	3½	108	27	...	13742
1844	2485	1338	276	496	672	2603	4	97	24	...	13246
1845	2772	1338	171	591	653	2903	4½	147	37	...	12655
1846	2679	1140	172	742	650	1757	4½	136	35	...	11913
1847	2643	1031	170	828	600	1720	4½	157	41	...	11085
1848	2488	814	170	933	673	1117	4	139	34	...	10152
1849	2462	750	234	908	522	1300	3	82	22	...	9244
1850	2633	870	220	1185	471	1757	4¾	117	29	...	8059
1851	2581	696	220	1523	403	1375	4	93	24	...	6531
1852	2772	861	181	1397	331	2633	3½	152	37	...	5184
1853	2943	1406	180	1421	256	2388	3½	134	36	...	3713
1854	3126	1180	180	1695	174	2168	3½	103	27	...	2018
1855	2148	608	200	1314	102	825	3½	79	23	...	704
1856	2021	1192	191	704	44	1605	3½	217	64	...	Nil.

• In hand £18 10s. 2d.

Under the head of *Cost of Repairs*, are included the expenditure in Manual Labour, Team-Labour and Carriage of Materials, Materials for Surface-Repairs, Tradesmens' Bills, and Incidentals.

Other Payments, includes the payment of Salaries, Law-Charges, Land purchased, Damages, and Improvements.

Mr. Richd. Bayldon's duties, as Surveyor of this Trust, commenced in Jan., 1840.

No. XXI.

COMPARATIVE AMOUNT OF TOLLS RAISED FROM THE DIFFERENT TRAFFIC

Passing over the Leeds and Wakefield Road, being 8½ Miles; and the Leeds and Ealand Turnpike-Road, being 15½ Miles; during 1851.

1	2	3	4	5	6	7	8	9	10	11
YEARS.	Coaches and Gigs.	Narrow Wheels. Not Coals.	Broad Wheels, not flat. Not Coals.	Broad Wheels properly flat. Not Coals.	Narrow Wheels. Coals.	Broad Wheels not flat. Coals.	Broad Wheels properly flat. Coals.	Horses, Oxen, and Sheep. .	Charge for weighing and over- weight.	Total.
Leeds and Wakefield } Road, 1851	£ 1142	£ 556	£ 42	£ 458	£ 65	£ 2	£ 220	£ 188	£ 113	£. 2786
Leeds and Ealand } Road: estimate of fourteen Months, ending June, 1851, founded on seven Months of actual collection, ending July, 1850	439	1149	139	40	689	38	12	118	11	2685

The collection of the Tolls on the Leeds and Wakefield Trust has been placed under Richard Bayldon's superintendence since July 1st, 1840.

The collection of the Tolls on the Leeds and Ealand Trust was placed under R. Bayldon's superintendence from July 1st, 1845, to July 31st, 1850.

No. XXII.

EXPLANATION OF No. 17, 18, 19, & 21 RETURNS & TABLES.

No. 17. *District Man's Manual Labour Weekly Return.*—Roads should be divided into districts, allowing a certain length to one person's special care, varying the distance from two to four miles, according to the man's ability, or extent of traffic passing over the road. The road from Leeds to Wakefield is divided into three districts: yet there is so much traffic on the first one-and-a-half mile nearest to Leeds as to be quite sufficient to constitute a district, and find employment for one man, with two, four, and sometimes six men to assist him, either by the day or by contract, as found necessary, and as seen by his Weekly Return of Labour, No. 17. Full particulars as to the value of the services of the district-men are given at page 51.

No. 18. *Toll Collector's Weekly Return.*—When the tolls are of a large amount the money and a return are forwarded to me once a week, but only once a fortnight when the collections of the road are of a small amount. These are brought by one man to my office when the road is near at hand, but if at some distance, the money and returns are forwarded to me in registered letters, omitting all fractions of a pound sterling. The monthly sheets are sent at the close of every month. This sheet contains each day of the month at the left hand column, and on the top is a description of all kinds of traffic for which the toll is received, and the gross total of each day's collection is shown; and the day-wages of the collectors are deducted, and the net amount put down also. On referring to page 55, a return is given showing the receipts from tolls on one trust during five years. The wages paid to all the collectors appear to average from $6\frac{1}{2}$ to $8\frac{1}{2}$ per cent. on the gross rental. I was able to bring the average expense of collectors' wages low, and at a moderate charge, from having had the repairs, as well as the collection of the tolls, under my care. I placed at some of the gates one of my district-men, and from his wife being the collector, as alluded to at page 51, she could attend to the tolls at far less expense than if a family had been engaged entirely for the purpose. The wages of the collectors on the Leeds and Wakefield Trust only averages about $8\frac{1}{2}$ per cent. on the gross rental. When the repairs and tolls are both placed under my care the collectors' wages seldom exceed 10 per cent. Every one of these collectors are a great check on the labour performed on the road, and indeed are to some extent held responsible for the good condition of the road adjoining, and are desired to supply me with every information requisite, and make themselves generally useful. Even if toll-gates were abolished, and which is not likely to take place in the rural districts of England, the toll-houses should stand in their present positions, as under all circumstances the men residing in them should have the care of the roads adjoining; instead of those roads (as is too often the case at present) being repaired by parties residing far distant, and much time and expense is consequently wasted by travelling to and from their work, instead of the district man being placed as near his work as possible, ready for any emergency. It would be advisable to retain the houses and gates, if it were only to regulate the shape of the broad wheels of heavy carriages; and which I trust I have elsewhere proved, generally speaking, to be "a sham, a mockery, and a delusion."

I have found the scale of tolls charged for traffic passing over most of the roads placed under my care, very unjust indeed; but have nevertheless, endeavoured as much as possible, to act with equity; being of the opinion of

an eminent author, "that a shrewd and intelligent man of business will in the majority of cases, come nearer to the truth in regard to substantial justice than a man who looks at every case through the spectacles of the law. Indeed it is recorded of a merely legal magistrate, that his great difficulty of administering justice was that of forgetting naked, uncompromising law, and thinking only of justice and equity." I will only just remark, that within the last ten years, no less than £60,000 of toll-money has been collected under my care, and I am not aware that either time, or money, have been wasted in any litigation whatever on these tolls during the whole of the period alluded to.

No. 19. *Width and Depths of Materials in the Road.*—During March, or April, of each year, great care is taken to ascertain the depth of hard materials in the centre of all the roads placed under my care; these depths are taken at equal distances of 50 different places within each mile in length. The marks are 5 rods, or 35 yards distance from each other, thus taking 50 to make 1750 yards, or only 10 yards short of a mile. These distances are marked on the walls and buildings alongside the roads; and stones are placed opposite quick wood fences. All scraping, dirt-heaping, road sides cleaning, and other road work, are, as much as possible, let by contract; these marks proving a very convenient reference as to the quantity of work performed. They afford an ever standing measurement as to the distances where fixed quantities of materials are required to be placed, and found necessary after taking the depths. We are not deceived as to being guided by the *appearance of the surface of the road only*, in reference to the quantity of materials to be allowed for repairs, during the following twelve months, but we are guided solely by the *depths found in the road*; and when it is found too thin we apply a sufficient quantity of materials to meet the wear of the traffic, and although a stranger passing over that part of road, which from it looking so good and level, he may suppose that we are wasting the funds of the trust needlessly; but yet guided as we are *solely* by the depths, we put the road metal on exactly where wanted; not waiting until it be worn through. By putting a regular covering over a level surface, we retain that level surface, and which wears even, and much longer, than when small patches are only applied just after the material is worn off and hollows formed. I have elsewhere pointed out the great waste of funds in paying for labour on roads without a proper check being taken as to the quantity of work performed. The simple plan of having all highways marked, as well as turnpike-roads, would prove very convenient and economical.

During March or April of each year, no merchant or tradesman ever looks forward with greater interest as to the result of his annual stock-taking than I do to learn the depths of hard materials in the centre of all the roads placed under my care. For although I may have had my accounts for the previous year passed, and it would appear, judging alone from the general statement of the trust, that the finances have been improved to the extent perhaps of £700, as compared with the previous year's statement; yet if I find the average depth of material is only three-quarters of an inch thinner, although more than the usual quantity had been used in the repairs, on account of the severity of the winter and the destructive traffic passing over the road, and it would still require such a quantity of material as would cost £500 to place the road in the same condition as it was found during the previous season; and although the debts had, as alluded to, been reduced £700, yet as the road itself was actually £500 in worse condition as regards value of road-metal in it, the real improvement of the finances within the

year would therefore only be £200 better, and not the £700 as would appear, judging from the printed accounts alone.

No. 21.—*Comparative amount of Tolls raised from the different Traffic passing over the Leeds and Wakefield Road, and the Leeds and Ealand Road, during 1851.*—The result of the comparative amount of the different conveyances loaded with coal is as follows:—

	£.
There is paid per year, on the Leeds and Wakefield Road, for heavily-loaded narrow, and improperly-shaped broad wheels, only about	67
But on the Leeds and Ealand Road, for the same traffic, there is paid no less than	727
And on the Leeds and Wakefield Road there is paid per year, for properly-shaped flat broad wheels	220
Whilst on the Leeds and Ealand Road, for similar traffic, there is paid per year only	12

The Leeds and Ealand Road is in a very inferior state, both in repairs and finances as compared to the Leeds and Wakefield Road. But the tolls of the Leeds and Wakefield Road have been placed under my care during the whole of the last seventeen years, and consequently securing the entire amount for the benefit of the trust; whilst the tolls of the Leeds and Ealand Road have been let by contract during the greater part of that time. The Leeds and Wakefield Road, moreover, has a scale of tolls which encourages properly-shaped broad wheels, and restricts the traffic as to weights; whilst on the Leeds and Ealand Road there is not the slightest check on narrow and improperly-shaped broad wheels, and one-horse carts are not limited as to weight. It is from these causes that the difference has arisen,—the inferiority of the Leeds and Ealand to the Leeds and Wakefield Road, both as regards state of repairs and condition of finances.

No. XXIII.

OBSERVATIONS ON THE STATUTE DUTY DUE FROM PARISHES TO TURNPIKE-TRUSTS.

[From Mr. Penfold's Evidence before the Committee of the House of Commons on County Rates.]

The demand which a turnpike-trust can make upon the several parishes through which the road passes, appears, from what can be collected, to be quite misunderstood by the generality of persons.

At the same time the mode of adjusting it seems quite as easy as the misconception seems great.

I have always looked upon the liability of a parish to contribute towards the support of a turnpike-road to be to this extent, viz.—That, passing through the parish, the inhabitants have the advantage of the road for their own use and benefit in moving about from one place to the other within the parish, in the same way as they do on their own parish-roads, and consequently they ought in fairness, for such use and benefit, to be liable to keep it in the same state of repair as their own parish-roads. But if they wish to make a further use of it, in the same way as the public at large do, in travelling from one large town to another, and beyond the limits of their parish, they ought in the same way to be liable to the toll.

A great deal has been said upon the hardship which this contribution to the turnpike-trust occasions to the farmers. Now, even in this point of view just stated, can it in reason be considered a hardship, when the farmers are in the enjoyment of the use of the road from day to day, without any contribution saving the statute-duty? Do away the statute-duty due to the trustees, and the farmers will then be using the turnpike-road without contributing anything towards its support, and, indeed, at the expense of the public.

Why should this be so? Did they not, when they took their farms, know that such a duty would be imposed upon them? And did they not make their calculation of the expense attending that taking accordingly? And the same, with regard to their landlords. When they purchased the estate, which the farmer rents of them, did they not calculate that the land would be burthened with this necessary charge, and pay for the estate accordingly?

Where, then, in either point of view, can be the hardship? In the first place, they have the use of the road for the duty they are called upon to perform; and in the next, they pay rent less in proportion to this charge laid on upon the land. The fact is, the grievance consists in the mode in which the charge is laid upon them, viz.—in the objectionable form of statute-duty.

Now the remedy is very simple, viz.—Do away statute-duty, and make a rate upon the rental. Let the farmer, as far as regards the parish-roads, do his proportion of the horse-work necessary for the repair of those roads, and pay him for the work he does according to its value, that is, a price per cubic yard per furlong, agreeably to a graduated scale drawn out for the purpose.

Pay the turnpike-trusts its proportion of the money collected by the rate, and let it be regulated upon this sound and fair principle, viz.—Supposing the parish-roads cost £500 to keep in good condition, and the number of miles kept in repair for that amount be fifty, and supposing the length of turnpike-road through that parish be three miles, then it is easily ascertained,—thus, if fifty miles cost £500, three miles will cost £30.

It would seem that the inhabitants of a parish might as well complain of having their own parish-roads to keep in repair, as to object to keep in repair the turnpike, as far as I propose that they should be liable. Because, would they not be using the turnpike-road from day to day free of expense, which they cannot do as respects their own roads? And would it not be unfair and unjust to make the public traveller pay for wear and tear, which is occasioned by a different party?

The origin of the charge upon the parishes appears to have been from this very cause, that the inhabitants of the parishes could use continually the turnpike-road without contributing anything towards its maintenance, were it not for the statute-duty which was imposed upon them; and therefore they were made liable to contribute as much towards its support as they would have to pay were the road one of their own parish-highways.

This mode of looking at the question, and which would reasonably appear to have been the original meaning and intention of the charge, would have, as far as it goes, this useful tendency, viz., to make parishes keep their roads in repair for as little money as possible; for the less they spend upon their own highways, the less they would have to contribute to the turnpike-trust.

[See an excellent *Practical Treatise on repairing Roads*, by Mr. Penfold. Published by Robert Baldwin. London, 1847.]

No. XXIV.

TURNPIKE TRUSTS.—Table showing the different items of Tolls; Expenditure; Bonded Debts paid-off, &c., connected with the Turnpike-Roads in England and North Wales.

Date.	Tolls.	Money Borrowed.	Repairs.	Improvements.	Interest of Debt.	Bonded Debt Paid off.	Bonded Debt.	Unpaid Interest.
	£.	£.	£.	£.	£.	£.	£.	£.
1834	1,400,061	141,314	890,687	200,527	279,491	107,009	6,845,544	974,658
1835	1,438,469	159,722	911,026	202,553	291,070	132,094	6,884,217	988,540
1836	1,487,088	120,961	933,301	198,254	302,685	116,096	6,941,414	1,000,024
1837	1,509,985	134,044	938,940	202,799	291,726	121,261	7,011,989	1,019,568
1838	1,490,534	95,479	875,328	151,005	290,803	130,727	7,011,764	1,039,883
1839	1,494,344	87,323	894,028	137,843	289,581	124,417	6,938,935	1,160,276
1840	1,458,734	95,794	864,098	156,473	285,649	124,114	7,016,098	1,210,799
1841	1,398,707	72,883	826,413	102,516	291,053	109,453	7,009,191	1,248,515
1842	1,336,546	80,223	810,101	108,642	284,854	112,110	6,992,185	1,296,907
1843	1,314,179	58,182	749,062	85,343	281,385	112,517	6,932,293	1,341,681
1844	1,298,022	39,344	717,919	60,479	281,444	140,328	6,846,278	1,360,238
1845	1,297,767	38,147	686,564	61,772	272,200	154,597	6,748,396	1,407,806
1846	1,267,329	25,377	678,177	57,578	272,133	168,827	6,619,137	1,441,984
1847	1,214,709	6,026	692,894	31,317	262,530	149,424	6,483,081	1,493,734
1848	1,140,918	7,044	647,030	33,635	251,373	134,110	6,369,220	1,538,453
1849	1,097,482	11,662	609,200	41,900	254,460	120,297	6,382,647	1,537,010
1850	1,082,616	11,939	580,591	41,503	245,712	133,933	6,236,496	1,574,560
1851	1,079,122	4,451	578,891	31,994	235,982	113,288	5,993,621	1,412,842
1852	1,074,826	16,702	574,656	36,140	225,961	131,070	5,813,723	1,126,507
1853	1,068,782	16,010	611,120	41,953	214,960	142,076	5,663,271	942,525
1854	1,061,047	9,873	637,521	33,863	206,451	136,461	5,505,641	841,376

The system of Repudiating Turnpike-Trusts Debts came into operation in 1849, and for six years ending 1854, it will be perceived on referring to

Table No. 24, on Turnpike-trusts, that the Mortgage Debts had been diminished £777,125, or an average of £129,520 per year : and for the six previous years, viz., from 1843 to 1848 (saying nothing of the great reduction that had taken place in former years), the Debts had been reduced £859,803, or say an average of £143,300 per year ; being a greater annual reduction of £13,780, than has taken place since the Repudiating principle came into operation. Thus proving that the Commissioners of Turnpike-trusts had wisely and earnestly set to work in reducing these Debts long before, and without any need of their being unjustly urged to it, as they are in many cases, by the modern system of Repudiation.

It is also satisfactory to observe, that after the severe competition from Railways, the Road Tolls realized during 1854 the sum of £1,061,047 ; whilst the highest amount they ever produced was in 1837, when £1,509,985 was obtained. But the Mortgage Debts have been reduced nearly in a similar proportion, as during 1837 they were £7,011,989 (their highest amount), and at the close of 1854 they have been brought down to £5,505,641.

No. XXV.

TESTIMONIALS.

In making this Addendum of Testimonials on my own behalf, I disclaim any motive of self-laudation,—I can honestly adopt the clear and beautiful language of Archbishop Whately, when he writes thus:—"To obtain the approbation of the wise and good by doing what is right, simply *because* it is right, is most gratifying to that natural and allowable wish, to escape the censure and claim the approval of our fellow-creatures; but to make this gratification, either wholly or partly, our object,—to hold up a finger *on purpose* to gain the applause of the whole world,—is unjustifiable. One difficulty in acting on this principle is, that it often is even a duty to seek the good opinion of others, not as an *ultimate* object for its own sake, but for the sake of influencing them for their own benefit, and that of others."

- (1) *To the Trustees of the Leeds and Ealand Turnpike-Road.*
Gentlemen,

We, the undersigned, being inhabitants of the towns of Leeds and Wakefield, and the adjoining neighbourhoods, beg most respectfully to testify our high opinion of the superior skill and management displayed in the making of turnpike-roads by Richard Bayldon, the present applicant for your vacant office of Surveyorship. Since his connection with the line of road between Leeds and Wakefield, which only commenced on the 2nd of December last, he has, by his superior method and unremitting attention, effected such a general improvement as cannot fail to give perfect satisfaction to every one having occasion to pass along the above road. And should he be successful in obtaining your favour and support, we doubt not but he will at all times discharge the duties of his office in such a manner as will be creditable to himself and satisfactory to the trustees and the public at large.

16th March, 1840.

WM. BECKETT, *Leeds.*

RICHARD HOBSON, M.D., *Leeds.*

HENRY TEAL, *Stourton Lodge, near Leeds.*

FRANCIS MAUDE, *Hatfield Hall.*

J. ARMITAGE RHODES, *Horsforth Hall, near Leeds.*

JN. FRANCIS CARR, *Carr Lodge.*

JOSEPH HOLDSWORTH, *Wakefield.*

EDWARD SYKES, *near Wakefield.*

JOHN SMITH, *Leeds.*

R. E. PAYNE, *Leeds.*

BENJAMIN DIXON, *Wakefield.*

JOSEPH CHARLESWORTH, *Lofthouse, near Wakefield.*

SAMUEL SHARP, *Vicar of Wakefield.*

J. L. FERNANDEZ, *Wakefield.*

JOHN WILSON, *Hunslet.*

JOSEPH MIDDLETON, *Hunslet.*

ROBERT BAKER, *Leeds.*

CHARLES TEE, *Barnsley.*

EDWIN EDDISON, *Leeds.*

WM. HEY, JUN., *Leeds.*

T. P. TEALE, *Leeds.*

WILLIAM HEY.

GEO. GOODMAN, *Leeds.*

- (2) *HARBRO'-HILL, BARNSELY, July 21st, 1840.*
Sir,

I have not written to Mr. Leitherd, of Alnwick; 1st. Because I could not persuade myself that you needed my testimony. 2nd. Because, if given, it would fail to have the weight and influence of official authority, —not being either commissioner or trustee, although I am a large payer of

rates which have been laid out under your direction. 3rd. Because your fame as a *first-rate* road maker is spread throughout the north of England, your talents in this department being well-known, and as *original* as they are meritorious,—embracing all the requisite combinations of skill, application, fixedness of purpose, tact, and perseverance; thus rendering all extra-official testimonials quite superfluous.

To Mr. Richard Bayldon.

I remain, yours truly,
JOHN TWIBELL.

(3)

WAKEFIELD, 22nd June, 1840.

• Sir,

In answer to your letter of the 19th, I have much pleasure in stating that I have known Mr. Richard Bayldon for some years, and have always found him an exceedingly steady, business-like person. As a Surveyor, I question very much whether he has his equal. The roads in this neighbourhood under his superintendence bear me out in saying that he has a thorough knowledge of his duties.

I have the honour to be, Sir, your very obedient and humble Servant,
JOHN MARSDEN.

To William Burrell, Esq., Broome Park.

(4)

SANDAL, near WAKEFIELD, 26th June, 1840.

Sir,

In reply to your letter of the 20th instant, I beg to state my opinion of Mr. Richard Bayldon as a Road-Surveyor. I have resided in the neighbourhood of Leeds and Wakefield the last twenty years, and have noticed particularly the road between Barnsley and Wakefield as being one of the best I ever saw, and of its always being in perfect order at a very moderate expense. When Mr. Bayldon took to it, twelve or fourteen years ago, it was one of the worst roads in the country. The road from Wakefield to Leeds has been under Mr. Bayldon's management about six months, at which period it was in a very bad state, and nearly worn out; it is now very much improved, and will, I have little doubt, in a few months be equally as good as the Barnsley Road. I have had a good deal of experience in road-making for fifty years, and I must say that Mr. Bayldon's system is preferable to any that I have ever seen.

I have the honour to be, Sir, your most obedient Servant,
THOS. DYSON, CIVIL ENGINEER.

To J. Lambton Loraine, Esq.

(5)

PINDER-OAKS, BARNSELY, June 22nd, 1840.

Sir,

I have great satisfaction in replying to your letter of the 19th instant. I am well acquainted with Mr. R. Bayldon's capabilities as a Surveyor of Roads, and I can say of him that I do not know his equal. He was (and now is) Surveyor of a portion of the Wakefield and Sheffield Trust. The road was, previous to his appointment, as bad as can be imagined, and is now one of the best in England. Some months since he was appointed Surveyor to the Leeds and Wakefield Trust, which was then in a very indifferent state; and although he has had that road only a very short

time under his care, yet by his ability and application it appears likely to rival the Wakefield and Sheffield Road. I can with perfect confidence recommend him to any trustees of Turnpike-Roads.

I have the honour to be, Sir, your very obedient Servant,
To William Burrell, Esq. CHARLES TEE.

(6) OULTON, near LEEDS, June 25th, 1840.

Dear John Lambton Loraine,

I have had Richard Bayldon with me, and I have written to Bigge and Jobling, urging their support. So far as I am a judge, I think the Trust will not regret the appointment; if his plan is economical, I can speak from experience of its durability and goodness. I am constantly passing over that part which he has formed at the southern entrance to Leeds, and although the traffic is immense, it is very superior to anything I have ever seen before, and outstrips, in my opinion, the system of either M^r. Adam or Telford.

Faithfully your's,
 JOHN BELL.

(7) PARK-HOUSE, LEEDS, June 22nd, 1840.

Sir,

It is seldom an enviable duty to recommend an individual to an office of trust; however there are exceptions, and I am happy to say that my present recommendation is a very marked one indeed. For many years Mr. R. Bayldon had the care of the Wakefield and Barnsley Road, and my professional avocations having frequently called me over its whole line, as well as all the other roads from twenty to forty miles round Leeds, I have by this means had a good opportunity of comparing the different lines, more particularly as I am very fond of horses, and almost invariably drive my own. Seeing the vast superiority of the line under his management over all others in this neighbourhood, and hearing that the Commissioners of the Leeds and Wakefield Road intended to elect a new Surveyor, I wrote sixteen or seventeen letters to as many individual trustees, and more particularly called their attention to the Barnsley Road; and the consequence was, that Mr. Bayldon was, I believe, unanimously chosen, and I have received the thanks of many since that period in enabling them to secure so able an individual. For that occasion I believe there were about thirty candidates. Before the change of Surveyor took place, it took me an hour and ten minutes to drive to Wakefield with a pair of horses, now I run it in fifty-five minutes, with more ease to my horses and infinitely less wear and tear to the carriage. In the course of four months every one allowed the great improvement in the road, but they dreaded the expense; however I understand it will turn out to be little or no greater cost than the last year's expense, and the road will clearly last twice as long without repair. Mr. Bayldon is indefatigable in accomplishing that which he undertakes, and I believe that no one, at least in this part of the country, to have the same capabilities. I know nothing of Mr. Bayldon beyond his surveying department, and therefore I have no private ends to serve.

I am, Sir, your obedient Servant,
To J. L. Loraine, Esq. RICHARD HOBSON, M.D.

- (8) *HICKLETON, near DONCASTER, June 22nd, 1840.*

Sir,

I believe Mr. Richard Bayldon to be well acquainted with the most approved theory and practice of road-making. He converted, some years ago, the Barnsley and Wakefield from one of the worst into nearly one of the best roads in England. But not being an active commissioner on those roads, nor living on the line, I am the less qualified to speak of Mr. Bayldon than those under whose eyes he has been acting.

I remain, Sir, your very obedient humble Servant,
To Wm. Burrell, Esq. F. L. WOOD.

- (9) *FAWDON, near NEWCASTLE, 23rd June, 1840.*

Sir,

In the middle of January, 1835, I went from home, and travelled about 700 miles in England. I went by way of Wakefield, and was very much struck with the superior state of the road between that town and Barnsley, which I had known a few years before the worst stage of the whole distance I travelled. I was sitting beside the coachman on the box of the Leeds and Leicester coach, and on noticing to him the fine state of the Wakefield and Barnsley stage, he told me the public were indebted to you for it, adding, that if he had lost time in the previous stage, he could make it up on your road. I have no hesitation in saying that the Wakefield and Barnsley stage was the best I travelled in the 700 miles. You have my leave to make what use of this communication you choose.

I am, Sir, your most obedient Servant,

J. LAMBTON LORAINÉ.

To Mr. Richard Bayldon, Hunslet, Leeds.

- To the Trustees of the Cow-Cawsey and Buckton-Burn Turnpike-Road.*
 (10) *NEWCASTLE-ON-TYNE, July 7th, 1840.*

Gentlemen,

At the request of several trustees of the roads in the North of England, a short time ago I went over to Leeds to examine the different turnpike-roads in that neighbourhood, and more particularly those under Mr. Richard Bayldon's care, and who I understand is now an applicant for the Surveyorship to your important line of road. I met Mr. Bayldon at Leeds, who accompanied me over the road from Leeds to Wakefield, and from thence to Barnsley, both of which trusts he at present surveys. I strictly examined the state which the roads were in. I also took particular notice of the method Mr. Bayldon follows in the application of materials, which has a decided superiority over any plan followed at present by any other Surveyor. Mr. Bayldon's system consists in covering the whole width required with material five or six inches deep, and then coating the whole with what he calls a blending material. The practical result arising from this process is a complete and even surface, that consolidates into a cemented mass, and during the wear of years presents to the view a regular and uniform plane, without any appearance of breaking up, which is the fault of other roads, and entirely free from the annoyance of loose stones. During the many years I have been professionally engaged in many of the counties in England and Wales, I have not seen any other road in such a perfect state. I also consider Mr. Bayldon a most scientific turnpike-road Surveyor. The appointment of such a person to the highly important office

of your Surveyor would be of great advantage to this district, as it would by example have a tendency to improve the present system of upholding turnpike-roads over the North of England.

Gentlemen, I am, with great respect, your obedient humble Servant,
 WILLIAM E. GILLESPIE, CIVIL ENGINEER.

(11) GROVE VILLA, HUNSLET, *January 19th, 1841.*

My dear Sir,

I beg to thank you for your very excellent remarks upon road-making, as conveyed in your various reports and practical information. It appears to me that the great utility and consequently superiority of your plan in maintaining roads, is to protect the material until it be bedded; this you effect by covering it with ashes or other blending material; the consequence is, the whole of the material is worked into the road, whereas upon the old plan half of it was consumed in friction for want of a covering. It further appears to me, that, from the above plan, the roads so repaired must be more durable; this must be quite evident to any unprejudiced person who only compares the present state of the Leeds and Wakefield Road with that in which it was in only a year ago. The only question remaining, then, is, whether your plan is more economical?—you have shown that it is, from your own experience upon other roads, as also from common sense, for what is well done is twice done. Although, then, the expenditure may be, and is, great at first, I hope the trustees will not listen to the statement of interested parties, but give your plan a trial of a few years; if they do this, I do not hesitate to say that their debts will be liquidated, and that they will unanimously confirm the testimony which they have received of your character and ability. I return you your valuable testimonials, and thank you for your other papers, and believe me,

Dear Sir, your's very faithfully,

To Mr. Richard Bayldon.

JOHN CLARK, VICAR OF HUNSLET.

(12) LEEDS, *April 7th, 1841.*

Sir,

I have received your communication and opinion on the system of turnpike-roads, also the report, showing the necessity of a new scale of tolls being adopted on the Leeds and Wakefield Turnpike-Road, in order to enable the trustees to maintain it without calling on the several townships through which it passes. I have been an extensive contractor for making and repairing turnpike-roads, and various public works during the last twenty-nine years, and have often had occasion to lament the waste of material in laying down and repairing roads; the manner in which this was done rendering them at some seasons almost impassable and unfit for carriages travelling during at least one-half of the year: all this being caused for want of proper judgment in laying on the material, and getting it set in its solid body. Up to this period I confess I never met with a Surveyor to coincide with me in this opinion, excepting Mr. Abbey, of Huddersfield, and yourself. Mr. Abbey and you agree in the system of road-repairing with but few exceptions. Mr. Abbey sets his material by the pressure of the roller, you by mixing them with a small material; I admit your system to be decidedly the best, as you lay on the weight of your material in the summer, and by mixing it with a blending material it is thus fairly set in its solid body without waste. Your road is also thus rendered firm and smooth in winter, and

requires little more than scraping at a time when most of your neighbouring Surveyors have their roads in an unfit state with dirt and loose material, rendering them most dangerous for horses to travel on. The perusal of your papers on the subject of materials reminds me of a meeting of trustees held at Dewsbury about sixteen years ago, when I stated to them that all the roads in the neighbourhood of Wakefield, Dewsbury, and Leeds would be repaired in less than twelve years with furnace-cinders; I well knew it was the best and cheapest material in the end, as there is no other material to be found in this part that can equal furnace-cinders for quality, cleanliness, and durability, and that will create so little dirt and water. Your system of road-scraping far excels anything I ever saw, and is of the greatest utility on turnpike-roads; I am indeed certain that all Surveyors will yet have to adopt your system of road-repairing; I have already advised several Surveyors to this effect. Your mode of letting your work by contract, instead of day-labour, clearly proves your good management, being an encouragement to the workmen, at the same time that it is a saving of at least one-third of the expense of manual labour. As to the new scale of tolls proposed to be adopted on the Leeds and Wakefield Road, I entirely coincide with you excepting in one respect. Inasmuch as the townships through which turnpike-roads pass are or have been put to so much expense in repairing them, I am of opinion that all carriages conveying manure, road-material, and lime for land, with wheels of no less breadth than four-and-a-half inches tire and running perfectly flat, ought to be exempt from toll from the 1st of April to the 1st of November, but subject to weight as follows:—Carts, waggons, or such like carriage, with wheels of no less than six inches flat and cylindrical tire to carry 60 cwt. including carriage; and four-and-a-half inch wheels running perfectly flat to carry 35 cwt. including the carriage; and all carriages carrying a greater weight to be charged a double toll for every such load. I have thus given you a brief statement of my opinion upon these subjects; I do this as a practical man, entirely disinterested in the matter, and only seeking the public welfare and advantage. I hope you will meet with such support as may enable you to carry your proposed scale through the general Act for Turnpike-Roads, as I am convinced it will eventually be a great saving to the public.

I am, Sir, your's respectfully,

To Mr. Richard Bayldon.

JOSÉPH BINNS.

(13) SHAFTON, near BARNSELY, January 7th, 1841.

Sir,

I have just been looking over your papers on roads, &c., which I brought over with me from your house; I cannot but testify my approbation of your plan of road-making as being decidedly the best method of making and mending roads I have seen. I am perfectly satisfied but little attention has been paid to either road-making, repairing, or the equality of tolls, levied upon persons using the roads. I am of opinion that a very great improvement may be made both in the construction of carriage-wheels, and regulating tolls by weight; I wonder our legislature have adopted no better laws for the proper collecting of tolls, according to the construction of wheels, and weight carried on those wheels. Our law-makers must be roused by clear statements and facts, derived from experiments, *made I am sorry to say in too few instances*. I think, Sir, you should direct your attention to the drawing up of a pamphlet, clear and pointed upon this subject, embracing three particulars, as axioms laid down for the improvement of roads. *First*.—

The best method of making and keeping roads in repair. *Second*.—The best method of constructing all description of carriage-wheels, so as to combine ease for horses, and save the road. *Third*.—The proper equalizing of tolls, according to weight, distance, &c. Laying it down, then, as a great *axiom*, that great improvement may be made in the management of roads, the construction of carriage-wheels, and the levying of tolls, you may amplify these three particulars, so that the public will be excited to think and see the great good which will redound to society at large from the adoption of sound principles and practice in road-making and upholding, and toll distributing. Such a work, I think, you are able to do; I speak from long and close attention to your mode of management of the roads which you have had under your care. I think Divine Providence has raised you up to benefit mankind in this way. We have all our proper *gifts*, one after this manner, and another after that.

Your's most respectfully,

TIMOTHY SYKES.

To Mr. Richard Bayldon.

(14)

Sir,

LONDON, *February 1st*, 1841.

The papers which you have been so kind as to send me, contain a great deal of useful matter on the subject of roads, and notwithstanding so much has been done of late years to improve their condition, in my opinion very few are free from the great defect of being too weak, in consequence of not having a sufficient mass of hard materials to secure a proper degree of hardness and smoothness.

I am, Sir, your obedient Servant,

H. PARNELL.

(15)

Sir,

CAMDEN-HILL, KENSINGTON, *June 19th*, 1843.

I am much obliged to you for sending me your suggestions relative to the Turnpike-Trust Bill now before Parliament, and which I think are well worthy of attention. I have had communications of a similar kind from various other parts of the country.

I am, Sir, your obedient Servant,

W. S. LASCELLES.

(16)

Sir,

LONDON, *August 4th*, 1843.

I have received your remarks on the General Turnpike Bill, &c., &c., and your observations on road-management, which are very judicious, and for which I am much obliged.

I am, Sir, your humble Servant,

LONSDALE.

(17)

Dear Sir,

LEEDS, *24th April*, 1844.

I understand Mr. Richard Bayldon, of Hunslet, is a candidate for the office of paid Surveyor for the Township of Leeds, and that you have some influence in the appointment. I don't know a better man in the kingdom for the purpose, and should be glad to see him appointed to the office even at three times the proposed salary. I know him chiefly as a first-rate Surveyor both for quality and economy; but I believe him to be a very up-

right, benevolent, and respectable man. If you can serve him by speaking to any of the Surveyors, you will I think serve the town, and

Oblige your's truly,
EDWIN EDDISON.

To John Carwood, Esq., Leeds.

(18) BARNSELY, May 3rd, 1844.

Sir,

Understanding that Mr. Richard Bayldon is a candidate for the vacant office of Surveyor of your good town of Leeds, and feeling an interest in the success of an able and worthy man, I hope you will not deem it impertinent if I say in his behalf that for many years I had an opportunity of observing his conduct while Surveyor of Barnsley, and I can bear willing testimony to the fearless, impartial, and conscientious manner in which he discharged the duties of his office. To one resident in Leeds I need say but little of his qualifications, as I believe he is generally admitted to possess the greatest amount of scientific and practical knowledge of his profession of any man in the West-Riding. I have only to add, that the rate-payers of Barnsley have ever regarded his retirement from the town as a public loss, and which I am sorry to say they are not likely to repair. Trusting to your generosity to suggest some apology for my intrusion upon your valuable time,

I remain your obedient Servant,
EDWARD PARKER.

To Mr. John Jackson, Leeds.

(19) BARNSELY, May 2nd, 1844.

Sir,

Mr. Richard Bayldon, of Hunslet, Road-Surveyor, informs me that he is a candidate for the situation of Assistant-Surveyor for the Township of Leeds, and he has written to me for testimonials respecting his character and ability which he showed whilst he was Surveyor of the streets and pavements in the Township of Barnsley. He requests that I would address to you what I have to say in his behalf; therefore I must beg leave to state, that I think it my duty from the high opinion I have of his moral character and skill in his profession, to give an unreserved and unqualified testimonial in his favour. From what I have observed myself, and in the opinion of all who are considered competent judges, I think I may safely say no one can question his superior knowledge and skill as a Surveyor, and I am sure that no honest man ever questioned the integrity of his moral character. He was distinguished whilst in Barnsley for his philanthropic spirit, and I do not think that any one according to his ability did so much in acts of charity to the poor, or exerted themselves more to benefit their physical and moral condition. I have no doubt but that if he should have the good fortune to be appointed to the situation he is a candidate for, he will give the Board of Surveyors perfect satisfaction. Hoping that you will excuse the trouble I give you in thus addressing you,

I am, Sir, your's very respectfully,
MICHAEL THOS. SADLER.

To Mr. Joshua Hobson.

(20) COLLINGHAM, near WETHERBY, October 24th, 1846.

Dear Sir,

I have perused with much satisfaction your very luminous report, which points out not a partial but a general evil; I wish you would furnish a copy to the several Leeds newspapers; I doubt not that they

would print it without any charge at this time, when their papers are not over-filled with Parliamentary reports, &c. The townships of Micklethwaite (near Wetherby), Collingham, Thorner, and Bardsey, are similarly circumstanced as some townships to which you allude in your report, which, if published in the provincial newspapers, might reach many of the rate-payers. The abuses on turnpike-trusts are, and have been, many and great, not easy to expose, and very difficult to correct; you are a very great public benefactor in attempting to introduce a better order of things; I most sincerely return you my thanks, and wish you success.

I am, dear Sir, your faithful and obedient Servant,

To Mr. R. Bayldon.

B. EAMONSON.

(21)

LEEDS, *January 12th*, 1847.

Dear Sir,

In reply to your request that I would add my testimony to those you already have as respects your capability of managing turnpike-roads, I do not think you need any such document beyond what you already have; but I feel bound to add that I believe both the condition of the Leeds and Wakefield Road, and the state of the finances of that trust, to be very much indebted to your management for their present prosperity;—and further, that these advantages have mainly arisen from a judicious change of tolls recommended by you, and which has had the effect of clearing the road from much injurious and unprofitable traffic; and from the trustees having, about seven years ago, under your advice, taken the receipt of tolls into their own hands, instead of letting them as heretofore on lease. By these means, not only has the road been more easily kept in good repair, when relieved from the mischief of narrow wheels and excessive loads, but the trustees have been enabled to apply to the decrease of debt the funds which used to be swallowed up by repairs that ought never to have been required. I ought to add also, that, in acting on behalf of the trustees in the collection of the tolls, I believe you have given them full satisfaction.

I am, dear Sir, your's truly,

JOHN ATKINSON,

CLERK to the Trustees of the Leeds and Wakefield Road.

To Mr. R. Bayldon.

(22)

OAKWELL-HOUSE, BIRSTALL, *January 14th*, 1847.

Sir,

Having been an active trustee of the Leeds and Ealand Turnpike-Road for many years, both before and after it was placed under your management, I have had great pleasure in observing the gradual improvement, not only as regards the condition of the road itself, but also of its finances. When you were appointed Surveyor in 1840, we owed the Bank £1,300, besides £500 in Floating Debts, which have been paid off, and in 1846, £1,000 of Bonded Debt was paid off, and we shall also be able to pay off £500 this month or next,—results which, I believe, have entirely arisen from your management in repairing the road, and also the means you have taken to ascertain the real value of the tolls; and I further consider our present plan, of keeping the tolls in the hands of the trustees, and not leasing them, very beneficial to the interests of the trust.

I remain your's respectfully,

To Mr. R. Bayldon.

JOSHUA WALKER.

(23) TOWN-CLERK'S OFFICE, LEEDS, 9th January, 1847.

Sir,

Below I send you an extract from the Minutes of the Parliamentary Committee of the Council of this Borough, relative to your Report on the Turnpike-Roads Bill.

I am, Sir, your obedient Servant, for the Town-Clerk,
To Mr. R. Bayldon. JAS. WARDELL.

"At a Meeting of the Parliamentary Committee, 5th May, 1843.

"The Committee read and considered the Report of Mr. Bayldon on the subject of the Turnpike-Road Bill now in Parliament, and

"Resolved,—That the thanks of this Committee be given to Mr. Bayldon for his very able Report presented to them."

(24) "At a Meeting of the Trustees of the Wakefield and Sheffield Turnpike-Road, held at the Royal Hotel, in Barnsley, on Wednesday, the 10th day of August, 1842.

"Resolved,—That the thanks of this Meeting be given to Mr. Bayldon for the clear and correct manner in which he has kept his accounts as Surveyor during the last 14 years."

[The above is a correct extract from the Trustees' Minute-Book, having been examined therewith this 24th day of November, 1846, by JOHN STANIFORTH, their Clerk.]

We, whose names are hereunder written, being Trustees of the Wakefield and Sheffield Turnpike-Road, further testify, that Mr. Richard Bayldon's management of the road was very judicious and effective, and that his mode of making and repairing roads was worthy of our highest commendation.

WM. NEWMAN, *Darley-Hall, Barnsley.*

JOHN THORNELY, *Dodworth-Green, Barnsley,*

THOS. TAYLOR, *Middlewood - Hall, Barnsley.*

J. SPENCER STANHOPE, *Cannon-Hall, Barnsley.*

EDWD. NEWMAN, *Barnsley.*

W. WORDSWORTH, *Monk-Bretton, Barnsley.*

S. COOPER, *Park-House, Barnsley.*

J. D. CHARLESWORTH, *Chapel-thorpe-Hall, Wakefield.*

JOHN MICKLETHWAIT, *Ardley-Hall, Barnsley.*

GODFREY WENTWORTH, *Woolley-Park, Wakefield.*

JOHN BIRKS, *Hemingfield, Barnsley.*

WM. BENNETT MARTIN, *Worsbro'-Hall, Barnsley.*

CALEB CROWTHER, M.D., *Wakefield.*

WILLIAM ELMHIRST, *Round-Green, Barnsley.*

RICHARD THORP, *Monk - Bretton, Barnsley.*

WM. BINGLEY, *Ellersley - Lodge, Penistone.*

HENRY JACKSON, *Barnsley.*

WM. SHEPHERD, *Barnsley.*

GEO. ALLETSON, *Barnsley.*

GEORGE HAWKSWORTH, *Sheffield.*

WM. SMITH, *Barnes-Hall, Sheffield.*

WM. SMITH, JUN., *Sheffield.*

JOHN SCHOFIELD, *Horbury, Wakefield.*

THOS. FOLJAMBE, *Wakefield.*

JO. CLARKE, *Sherburn, Tadcaster.*

February 1st, 1847.

(25)

BRAMHOPE-HALL, OTLEY, 13th July, 1850.

Sir,

When in 1845 you undertook the management of the Leeds and Otley Road, the trust was, as you are aware, in a state fast approaching insolvency, and the road itself may, without exaggeration, be said to have been the worst in the Riding. There are now few better.

The tolls were then let; but the trustees, wisely acting under your advice, took the collection of them into their own hands.

Whether there was *then* any difference of opinion amongst the trustees as to the policy of adopting this mode of collecting, I am unable to say, but am quite satisfied that there is not a trustee who has taken any active interest in the management of the Leeds and Otley Road, whose experience has not convinced him that no step could be more fatal to the interest of the trust than that of reverting to the old (and what I had hoped would soon have been, the *exploited*) system of letting the tolls.

I consider that under your management the affairs of the trust have most materially improved.

I am, Sir, your very obedient Servant,

To Mr. R. Bayldon.

H. J. HARE.

(26)

OFFICE OF ROADS, BATH, November 18th, 1850.

Sir,

I have read your little pamphlet, "Turnpike-Road Traffic and Tolls," with much interest. I so much concur in your observations, that I have successfully, in several instances, induced trustees to keep the tolls in their own hands, and every year convinces me it is best to do so.

In addition to your very just observations on the "*buying off*," I can give you two other *dodges*,—bidding a gate up till the third glass is out, and then *bolting*, and even leaving £50, deposited by bidders as a precaution, in the hands of the clerk. Another is, forming a Joint Stock Company for the purpose of buying off or ruining strangers. But what *will* they not do?

A *new gate* was erected on a large trust, the tolls being let for three years. Who do you think was employed to tell the trustees the value of it? *The Renter of the gates of the Trust*, who *had* stipulated that he was to be allowed to give a private offer for it at the end of the first year!!

Your obedient Servant,

To Mr. R. Bayldon.

W. MCADAM.

(27)

FOUNTAIN-STREET, LEEDS, April 6th, 1853.

Dear Sir,

Having had many opportunities of forming an opinion of the quality of the roads constructed by you, I think it is only a matter of justice to you to state the same, and in such form that if you think proper so to do, you may use it in furtherance of your professional interests. My business for 20 years and upwards has of necessity caused me to be much on the public roads in and around Leeds; and for several years my observation of roads and road-making was pretty extensive, embracing a large portion of England, and some portions of Ireland also. I have tested the quality of your roads, both in riding and drawing, and have no hesitation in saying that I consider them equal to any on which I have travelled, and very superior to the average of the kingdom. Confining my remarks to West-Riding Roads, and especially those in the neighbourhood of Leeds, I give it as my deliberate

opinion, and without reserve, that your's are the best I know. I think I should have no difficulty, in cases where a road constructed by you is a continuation of some other road, in determining where your road commences or terminates; the character of your roads is not to be mistaken. If this testimony can be of service to you, it will be a pleasure to,

Dear Sir, your's truly,

To Mr. Richard Bayldon.

JAMES YOUNG.

(28) HEMINGFIELD, BARNSLEY, 7th April, 1853.

Sir,

Mr. Richard Bayldon, of Methley, near Wakefield, is desirous of succeeding the late Surveyor of the Turnpike-Roads near London. I beg to state to you, that, for many years past, I have been a witness to Mr. Bayldon's effective exertions, not only in keeping the different turnpike-roads in the neighbourhood of Barnsley, Wakefield, and Leeds, in excellent repair, but also in reducing the expenses of the repairs and debts of these roads. He has been engaged during the greater part of his life as Surveyor of different turnpike-roads, in advising and superintending the making and repairs of turnpike-roads; and from his well-known skill and great experience, I beg to assure you he will do credit to the situation if he is appointed to that he now applies for.

I have the honour to be, Sir, your very obedient Servant,

JOHN BIRKS.

Alexander Milne, Esq., 20, St. James's Place, London.

(29) HEADINGLEY, LEEDS, April 7th, 1853.

My dear Lord John Russell,

Mr. Richard Bayldon, of Methley, near Wakefield, who is a candidate for the situation of General Surveyor of the Metropolis Turnpike-Roads, now vacant, requests me, in forwarding the enclosed Testimonials to your Lordship, to add my recommendations to the many he already possesses of his eminent qualifications as Road-Surveyor. I have much pleasure in being able to do so with great confidence. I have not indeed been myself a trustee of the roads Mr. Bayldon has managed, but, from my residence here, I am necessarily well acquainted with their management and with the universal high opinion which they who have had personal transactions with Mr. Bayldon have formed of his diligence, ability, and integrity of character.

I am your's faithfully,

J. G. MARSHALL.

(30) SHERBURN, TADCASTER, April 7th, 1853.

Sir,

I understand that Mr. Richard Bayldon, of Methley, is a candidate for the office of superintendent of the Metropolitan Roads, now vacant by the death of Mr. McAdam. From a knowledge of Mr. Bayldon in his official capacity of Surveyor of turnpike-roads for twenty-five years and upwards, I feel no difficulty in certifying to his thorough knowledge of the principles of road-making and repairing. The road from Barnsley to Wakefield (part of the Sheffield and Wakefield Trust) was placed under his management when in a most deplorable state, both as regards repairs and finances; its present state, after a lapse of many years, proves strong evidence of Mr. Bayldon's skill as a Surveyor; this I speak to from my own

personal knowledge, having for many years acted as a trustee on that road, and for several years presided as chairman of the central meetings. I have no doubt that Mr. Bayldon, if elected, will be found an active and efficient officer.

I have the honour to be, Sir, your obedient Servant,
JOSEPH CLARKE.

Alexander Milne, Esq.

(31) LEEDS, 8th April, 1853.

My Lord,

I have long known Mr. Richard Bayldon, of Methley, near Wakefield, who has been for a great many years connected with turnpike-roads in and about this town and neighbourhood, and who is, I understand, now a candidate for the office of General Surveyor for the Metropolitan Turnpike-Trusts, vacant by the lamented death of Sir James McAdam, and believe him to be a very honest and upright man, and well qualified for the situation of Surveyor of any important turnpike-trust.

I have the honour to be, my Lord, your Lordship's most obedient Servant,
M. BLOOME,

Clerk to the Trustees of the Selby, Tadcaster, and Branch Roads from Seacroft to Scholes.

*Lord Robert Grosvenor, M.P.,
107, Park Street, London.*

To the Chairman of the Commissioners of the Metropolis-Roads.

(32) SELBY, 9th April, 1853.

My Lord,

The applicant, Mr. Richard Bayldon, for the vacant situation of General Surveyor of the Metropolis-Roads, is a person well qualified for the office, from his long and great experience as general Surveyor of several turnpike-roads in the neighbourhood of Leeds and Wakefield. I have been an active trustee upon several turnpike-roads for a long course of years; we had Mr. Bayldon Surveyor of the Leeds and Otley Turnpike-Trust, which office he filled to the general satisfaction of the trustees, with economy and judicious management.

I am, my Lord, your most obedient Servant,
The Earl of Lonsdale. JAMES AUDUS.

(33) BRAMHOPE HALL, OTLEY, April 14th, 1853.

Dear Sir,

Mr. Richard Bayldon, of Methley, near Leeds, is, I find, a candidate for the vacant situation of General Surveyor of the Metropolis-Turnpike-Roads. I have had very considerable opportunities of forming a correct estimate of Mr. Bayldon's talents and qualifications as a Surveyor of roads, and general manager of turnpike-trusts, and it is my decided conviction that it would be difficult to find a man so entirely qualified to fill the situation he now seeks to occupy as Mr. Bayldon.

I have the honour, &c.,
Alexander Milne, Esq. H. J. HARE.

(34) LEEDS, 18th May, 1853.

I have known Mr. Richard Bayldon for a great number of years, chiefly in his capacity of road-maker and Surveyor of roads. I believe

he has, in the performance of those duties, exhibited great skill and judgment; and his experience has unquestionably been very extensive; and from all I have heard and seen of him, I feel assured that he is highly appreciated as possessing qualifications in an eminent degree for the offices he now fills, and has for so many years successfully occupied.

ROBERT BARR.

(35)

My dear Sir,

LEEDS, *May 4th*, 1853.

I wrote the letters in a hurry to save post, and kept no copies, or I would most willingly have sent them to you. The purport of course was that I have known you for many years as a road-surveyor of great experience, and that in my opinion a more proper person could not be selected to fill the vacant office.

Mr. R. Bayldon.

Always your's very truly,
EDWARD BOND.

(36)

Dear Sir,

PONTEFRAC, *May 5th*, 1853.

I am sorry that an unavoidable circumstance prevented my answering your letter to me on the 6th of April, until I found it to be too late to be of any service for the election of Surveyor to the Metropolis-Roads. I have travelled (in my vocation as Surveyor of the West-Riding Bridges) over nearly all the roads under your management, and cannot but admire the plan you pursue.

Mr. R. Bayldon.

I remain, dear Sir, your's truly,
BERNARD HARTLEY.

(37)

Dear Sir,

MORLEY'S HOTEL, CHARING CROSS, *May 7th*, 1854.

I addressed two of the Commissioners of the Metropolis Turnpike-Roads some time ago, respecting your desire to be appointed Surveyor, and received from one of them a very obliging reply, that my recommendation should be attended to, whenever the election took place. The other told me in the House that he did not intend to vote at the appointment. I should have been glad to have seen you in such a situation, believing you would fill it to the public advantage.

Mr. R. Bayldon.

I am, dear Sir, your's truly,
GEORGE GOODMAN.

(38)

Dear Sir,

STRATFORD PLACE, *May 21st*, 1853.

I learn with great regret that your application has not been a successful one. It would have been a source of sincere satisfaction to me to have been enabled to render you any service.

Mr. R. Bayldon.

I am, dear Sir, your faithful Servant,
JAMES MILNES GASKELL.

(39)

Dear Mr. Stanhope,

LONDON, *April 9th*, 1853.

Though it is very long since I have seen you, I am happy to hear from you, and should have given every weight to your recommendation of Mr. Bayldon, but the vacancy no longer exists at the Metropolis-Roads

Office. The loss of the two M'Adams, one after the other, within so short a time, made it desirable that a person well acquainted with the details of the business should be appointed, and the Commissioners accordingly have appointed Mr. Browse, who for a long time has acted under the late Surveyors as Inspector of the Metropolis-Roads.

I remain very faithfully your's,
LONSDALE.

(40)

18, UPPER BROOK STREET, 22nd July, 1853.

Sir,

I have not time to address a separate letter to the several gentlemen who are trustees of the roads around Leeds, and who will have the appointment of a Surveyor in Mr. Hardcastle's place, but if any gentleman should wish to refer to the knowledge and experience which I have had of your qualifications for such a situation, I have no hesitation in saying, that, whether we regard the true principle of road-making, or the financial interests of these trusts, I do not know any one so competent to undertake these duties as yourself.

WM. BECKETT.

Mr. R. Bayldon.

(41)

BEESTON, near LEEDS, 7th May, 1856.

Dear Sir,

I feel extremely obliged by your sending me a copy of the proposed twelve clauses, and must say that in the principle thereof I perfectly concur; but at the same time I would respectfully suggest, that the trustees should have a discretionary power in putting the said clauses into force, so far as regards the first ten clauses, as it appears desirable that a sufficient time should be allowed to the public, to enable them to prepare their carts, &c., with proper wheels, at as little loss and inconvenience as possible.

As regards the 11th and 12th clauses, I would suggest, that the trustees, having compulsory powers to take lands, ought, first, to make proper entrances into and fence off lands properly, and then the expense of keeping them in repair be thrown upon the occupiers as you propose, subject, however, to the following exceptions, viz.,—Whenever the fences are upon an embankment, or through a cutting, and are quite sufficient for the purposes of a fence for the occupier of the land, but at the same time dangerous to the public using the road, then I would submit that the said fences should be kept in proper order by the trustees.

Allow me to express my admiration of your conduct in devoting so much time, and of the talents displayed by you in these important matters; that you may live to see them, and many other improvements suggested and made by you in the management of roads, carried into effect for the welfare of the public, is the sincere wish of,

Dear Sir, your's truly,

DANIEL WEBSTER, SURVEYOR.

Mr. R. Bayldon, Methley, near Wakefield.



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